Self-Esteem and Schizophrenia: The Relationship with Social Support, Expressed Emotion and Life Events and the Clinical Relevance of Associated Cognitions

By

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Declaration

This thesis has been composed by myself and the work contained herein is my own.

Signed .....

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I have received help and support from many people during the completion of this research and my thanks goes to them all.

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Abstract

Self esteem is recognised as a major contributory factor in mental health. Research has focused on the association with depression but there has been relatively little interest in the role of self esteem in schizophrenia. Literature on social and cognitive models of depression together with findings of research into relapse in schizophrenia indicate that self esteem may have an important role in the outcome of schizophrenia. This study investigates this role particularly in relation to factors which have previously been identified as relevant to the course of the illness. Subjects with a diagnosis of schizophrenia, were assessed on levels of self esteem, expressed emotion from a relative/partner, social support and experience of major life events. Data analysis establishes associations between these variables. Associated psychological factors including perceived control and illness attributions are included in the analysis. In addition patients dysfunctional core beliefs about self, others and their illness are identified and examined in relation to the variables measured. The thesis discusses the findings in relation to the existing literature and explores theoretical issues including the place of self esteem within the vulnerability stress model and the likelihood of self esteem as a mediator between expressed emotion and relapse. The potential of cognitive therapy to target self esteem in this population is also discussed.

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Preamble

Use of the concept of schizophrenia, as reflecting a homogeneous group, is highly questionable due to the very heterogeneous nature of patients given this diagnosis. Several authors have commented on this and discussed the inappropriateness of continuing the use of such a concept in research. Bentall (1990) has shown that abandoning the concept of schizophrenia and focusing on particular symptoms can be valuable and more recent psychological approaches, e.g. cognitive therapy, concentrate on psychosis generally as opposed to a discrete disorder. Nevertheless most research has been completed using this criterion, and psychiatric treatment regimens, the dominant means of care for such patients, are primarily based on the diagnosis. Thus, studies which follow from research which use the diagnostic criteria are required to continue doing so. The present study also takes this approach as it is closely associated with research on areas such as expressed emotion which use the concept of schizophrenia as a discrete disorder. Later discussions in the thesis will examine this issue in the light of the study findings.

I : INTRODUCTION

Over the last 20 years psychological factors have become increasingly important in the study of schizophrenia. Research has shown that psychosocial factors such as the emotional environment, stressful events, social functioning, and social networks are closely bound to the course of the illness. Clinical psychologists have begun working with patients and their families to implement strategies to help them cope with symptoms, to manage stress in the family, to recognise signs of relapse and more recently to modify the positive symptoms of the illness. Self-esteem, a concept widely

recognised to be important in mental health has, relatively speaking, been neglected in the study and treatment of schizophrenia.

Examination of the typical onset and course of a schizophrenic illness gives clear indications that self-esteem is at risk. Schizophrenia often begins at an age when self identity is being established. The clinical features of the illness are positive symptoms of hallucinations and delusions, negative symptoms of apathy and social withdrawal, depression, and cognitive deficits such as lack of concentration. The consequences of these symptoms can be frequent hospitalisation, at times against will, social impairments, difficulties making and keeping personal relationships, loss of support from friends, family strain, loss of employment or studies, often a requirement to take permanent medication and to be in the long term care of psychiatric services, and last but certainly not least, the social stigma of mental illness.

Although some studies have examined self-esteem in schizophrenia they have not investigated self-esteem in relation to variables which are closely associated with the clinical course of the illness. Reviewing studies on the role of self esteem in depression and research on the influence of expressed emotion in relatives of schizophrenia patients, indicates that factors such as expressed emotion, social support and life events may also be related to self esteem.

The aim of this study is to investigate the role of self-esteem in the course of schizophrenic illness by examining the associations with psychosocial factors which are shown to influence the clinical outcome of the illness. In addition the study begins to

address possible treatment interventions which may improve self-esteem in this population by specifically examining indications for the application of cognitive behaviour therapy.

The thesis presents a literature review which begins by examining the concept of self-esteem and the role of self-esteem in mental health generally and in other psychiatric conditions. It goes on to give evidence from the existing literature of the possible role of self-esteem in schizophrenia. The remainder of the review is structured in two parts. The first examines research on the psychosocial factors of expressed emotion, social support, and life events and how self-esteem is related to these factors. In the second part of the review the indications for the application of cognitive behaviour therapy to improve self esteem in schizophrenia are investigated by looking at self-esteem related cognitions of schizophrenia patients including beliefs about schizophrenia and dysfunctional attitudes.

Introduction to self-esteem

Low self-esteem has been associated with depression, anxiety, personality disorders, child abuse, alcohol and drug abuse and adolescent problems. (Rosenberg, 1965; Wells and Marwell, 1976; Robson, 1988). In psychiatric research the main focus has been on depression and its relationship with self-esteem (Beck, 1967; Brown and Harris, 1978). The relative neglect in the field of schizophrenia is perhaps due to the inherent difficulty in examining self-esteem in a condition which by its nature causes confusion over self-concept.

This section of the thesis examines the concept of self-esteem, and discusses its development, its importance to mental well being and its role in psychiatry to date. It will show how existing research suggests a strong association with schizophrenia, and will examine why self-esteem may be an important factor in the course of the illness.

Defining Self-Esteem

There exists a broadly accepted intuitive concept of self-esteem which is used in mental health settings (and in some research), yet the reliance on an intuitive definition leads to an assumption that everyone has the same idea of what self-esteem is. Concepts relating to 'self' are widely discussed in psychology and include those such as 'self belief', self concept', 'self schema' and of course 'self-esteem'. Therefore finding a definition of self-esteem which is clear and meaningful and distinct from other concepts is essential to the discussion.

There has been much discussion over whether self-esteem is a global, general sense of self worth or whether it can be broken down into other elements. People have many different types of qualities which can be evaluated specifically, but these can also be summed to give an overall concept of self-esteem (McCandless, 1961; Rosenberg, 1965; Sherwood, 1965). There exist many terms which are used to describe attitudes to self including self-acceptance, self-confidence, self-efficacy etc. These terms have been considered as either wholly or part of a global concept of self-esteem (Wells and Marwell, 1976). Critics of the view that it is a global concept favour the theory that it is factorial (Harter, 1983; Wycherly, 1995), or follow a hierarchical model of self-esteem

where global self-esteem is a second order factor incorporating several first order factors (Kawash et al, 1989).

Robson (1989) in development of an instrument to measure self-esteem produced a definition to encompass many of the findings of previous work by others such as Rosenberg (1965), Coopersmith (1967), and Beck (1967, 1979), and which appears to cover the intuitive concept. The definition is based on the assumption that self-esteem is a global entity which is compiled of individual elements of appraisal of worth, significance, attractiveness, competence, and the ability to satisfy aspirations (Robson, 1989). To examine the concept of self-esteem more closely and in relation to other factors it is necessary to understand it's development and structure.

Development and Structure of Self-Esteem

Most theorists, with the exception of classical behaviourists who reject the concept of self-esteem, hold with the view that the antecedents of self-esteem are seen in childhood. As a young child a sense of self worth is given by parents who confer attention, approval, affection and love. There is a steady increase in self-esteem in adolescence which although usually seen as the establishment of self acceptance, has also been seen as related to the indoctrination of societies values (Robson, 1989). Although the behaviour of others remains important throughout life other issues also become significant. Expectations of others including family, friends and the wider community and the regulations of society instruct us how to behave (Beck, 1967). This contributes to the development of an ideal self which is reinforced through comparisons with others and is later internalised to become a comparison of ideal self and actual self

(Coopersmith, 1967). This pattern of development of self-esteem is very general, however, and much individual difference is found depending on the person's structure of self-esteem, which is dependant on life experience and perhaps other, intrapsychic, factors.

Experiences of life and of success and failure in life and the way in which they are attributed form our evaluation of self (Wells and Marwell 1976). Self-esteem in childhood is believed to be due to - unconditional acceptance of children by parents, defined and enforced boundaries of behaviour within which individual choice is respected, and high self-esteem in parents (Coopersmith, 1967). This is not available for many children, but although experiences in childhood such as separation from parents may create vulnerability to low self-esteem (Brown and Harris, 1978; Ingham, 1986), the perceived achievement of goals, ambitions and self expectation together with the approval of others may still create healthy self regard.

Individual differences may also exist in the structure of self-esteem, where some domains may be better sources of self-esteem than others. For example, the structure of self-esteem may include sources of self-esteem that can be broadly defined as an interpersonal domain, where esteem comes from relationships with others and the approval of others, and an achievement domain, where a dominant goal and achievement in that goal will provide self-esteem (James, 1890; Harter, 1983). This too may be dependent on life experience, but can also be due to cultural differences as self-esteem can reflect values deemed important by society (Rosenberg 1985). It has been shown, for example, that in Western culture sex differences in self-esteem have been found

where boys obtain self worth from self approval while girls tend to value more the approval of others (Wells and Marwell, 1975).

Mental Health And Self-Esteem

It is usually supposed that people with high self-esteem are more likely to be happy and well adjusted. In fact most writers assume that high self-esteem equates with optimal personality functioning (Rosenberg, 1965; Coopersmith, 1967; Ziller, 1969). The relationship is not however, as simple as it seems. Although no perspective holds that low self-esteem is best several theorists assert that low self-esteem may be more functional than high.

People with high self-esteem have been described as more likely to be repressive, avoiding or denying negative information where as those with low self-esteem are seen as more sensitive to negative evaluations, more flexible, more able to admit faults, less likely to use a facade and less authoritarian (Cohen, 1959; Katz and Zigler, 1967). It has also been stated that self-esteem has an inverse relationship to social competence (Katz and Zigler, 1967) and that defensively high self evaluation, perhaps due to self loathing may present as self confidence, ambition, arrogance and aggression and lead to less interpersonal stability than low self-esteem (Neuringer and Wandke, 1966). A recent review by Baumeister (1996) concluded that certain forms of high self-esteem can increase proneness to violence. Although raising self-esteem is seen as a crucial element of all modes of psychological interventions some psychodynamic theorists hold that a strong relationship between self and ideal self exists in individuals described as defensive and repressing (Rogers, Butler and Haigh, 1954).

There is a moderate position which holds that a medium or moderate amount of self-esteem is optimum for healthy personality functioning (Block and Thomas, 1955; Combs et al, 1963; Weissman and Ritter, 1970). This suggests that the relationship between self-esteem and personal adjustment is curvilinear, i.e. extreme positions are not good and that the middle ground is ideal (Block and Thomas, 1955).

Although extremely high self-esteem may be a sign of poor personal adjustment there remains overwhelming support for the theory that low self-esteem is indicative of poor functioning. People with low self-esteem have been found to be anxious and neurotic (Wylie, 1961; Fitts, 1972), to perform less effectively under stress (Shrauger and Rosenberg, 1970), to experience dependency, helplessness, depression, anxiety, poor general health, isolation, withdrawal and passivity (Coopersmith, 1967), to have a depressive attributional style (Peterson and Seligman, 1984) and several other negative outcomes including vulnerability to multiple interpersonal problems in adolescence (Kahle et al, 1980).

Conversely, high self-esteem has been associated with the ability to relate well with others (Rogers, 1951; Wells & Marwell, 1976). People with high self-esteem are less likely to suffer from isolation, exploitative attitudes or hostile dependency (Coopersmith, 1967), are less anxious, less sensitive to criticism, better able to tolerate distress, have better physical health, value independence, welcome competition and expect success (Rosenberg, 1965). Experimentally reduced self-esteem has produced depression,

anxiety, withdrawal and hostility (Wilson and Krane, 1980) suggesting that increases in self-esteem may improve these conditions.

In conclusion, the majority of evidence on self-esteem supports the view that poor self-esteem is linked to several negative factors, in contrast to moderate levels which have extensive advantages. More detailed examination of mental ill health and self-esteem will clarify the position further.

Self-esteem and mental ill health

Low self-esteem has been established as a clinical component of many psychiatric conditions including depression (Beck, 1967), anxiety (Rosenberg, 1962; Ingham et al, 1986) eating disorders (Laessle et al, 1987), alcohol abuse (McCord & McCord, 1960), drug abuse (Brehm and Back, 1968) and child abuse (Harter, 1983). Although there is variation in self-esteem levels among psychiatric populations, all conditions appear to have lowered self-esteem when compared to the normal population (Robson, 1989; Silverstone, 1991) (see Table 1). Most of the research in the field of psychiatry and self-esteem, however, has concentrated on depression.

Table 1. Mean Score on Robsons Self-Esteem Questionnaire. (Robson 1989)

Group	*Mean (S.D.)*
Controls	140 (20.0)
Generalised Anxiety Disorder	106 (25.9)
Adult Psychiatric Outpatients	112 (24.5)
Psychotherapy Referrals	100 (24.1)
Heroin/Alcohol Dependence	108 (29.3)

Self-Esteem and Depression.

There is an accepted view common among clinicians that there is a link between depression and negative self-evaluation, with much of the relevant empirical evidence pointing to a relationship where the depressed mood is primary and the reduction in self-esteem secondary (Lewinshon et al, 1981). There exist, however, alternative views of this relationship which postulate that self-esteem is a primary factor in the aetiology of depressive illness.

The two main models of depression are a cognitive vulnerability approach (Beck et al, 1979) and a social vulnerability model (Brown and Harris, 1978). Beck (1967) asserts that negative self-attitudes are not symptoms of a depressive syndrome, but are together with negative value judgements central to its pathogenesis. They exist in a latent state and can be activated by experiences of rejection or deprivation. Beck describes a collection of these self-attitudes as a "pre-depressive constellation" which may occur in response to an external stress and which may lead to a depressive episode even after the original stressor has ceased.

This schema based approach to depression promotes the idea that there is a stable negative self-esteem (Beck et al, 1979; Horowitz, 1991). However, various studies have shown that there does not appear to be a continuing negative self concept both within and between episodes of depression (Power, 1990). One of the drawbacks of the cognitive model is that it has difficulty incorporating the effect of the social environment. Other theorists have attempted to combine cognitive and social models (Brown et al, 1986; Oatley, 1992).

Brown and Harris (1978) took the view that there exists a trait or personality predisposition marked by low self-esteem which causes vulnerability to depression. From studies of the psychological effect of major life events, such as death of a spouse, divorce, and redundancy it was found that they play a major aetiological role in many conditions including depression (Brown and Harris, 1978; Campbell et al, 1983; Bebbington et al, 1984). The fact, however, that not everyone exposed to such life events develops depression led to the theory that certain vulnerability factors exist which increase the risk in the presence of a stressor. There are a number of vulnerability factors proposed including lack of confidants, separation from parents in childhood, having three or more children under 14 living at home and lack of employment. These factors do not cause depression in their own right but predispose a person to depression in the face of a stressor. It was proposed that each of these factors operates by producing an impaired sense of self-esteem over a sustained period (Brown and Harris, 1978).

The theory that a trait of low self-esteem is a primary factor in the aetiology of depression has been tested by several researchers. Monitoring self-esteem throughout an illness and recovery has shown that there does not appear to be a detectable trait of low self-esteem influencing outcome (Hamilton and Abramson, 1983). A prospective study by Lewinsohn et al (1981) where self-esteem was tested in non-depressed subjects who later became depressed found that self-esteem measures did not predict subsequent depression. A later prospective study by Brown et al (1986) used measures of self-esteem and social support to predict the risk of depression in the year following a

stressful event. Support at the time of any crisis in the following year was also measured. Self-esteem was found to correlate highly with measures of support. Low self-esteem and lack of support from a "core tie" such as a husband or lover, was associated with a greatly increased risk of subsequent depression once a stressor had occurred. It was concluded that lack of support and low self-esteem are vulnerability factors which will increase the risk of depression in the presence of a later provoking agent but will not do so on their own.

Evidence does not support a simplistic view of the relationship between self-esteem and depression. In a recent theoretical discussion more emphasis has been placed on combining cognitive and social models of depression to incorporate the main source of a person's self-esteem and the effect of the social environment. It is proposed that many episodes of depression result from the interaction between the individuals cognitive vulnerability and their social environment (Champion and Power, 1995). It will be seen from the following discussion that this theory is comparable to the vulnerability/stress model of schizophrenia (Neuchterlein et al, 1994). However, unlike models of depression there has been little discussion of the role of self-esteem in recent models of schizophrenia.

There has also been relatively little in the way of empirical research into levels of self-esteem in people with schizophrenia. Most of the writing in this area comes from psychodynamic theorists who were mainly interested in family aetiological theories. Clinical psychology and psychiatry although touching on very relevant areas, such as the

theory of expressed emotion, have not made a direct study of self-esteem in schizophrenia.

The Self and Schizophrenia.

Self concept has been regarded by many as an important factor in psychotic illness. Bleuler (1950) saw changes in ego and its attitude to the world as a feature of schizophrenia. Also Schneider (1959) observed that first rank symptoms such as hallucinations and delusions were due to a weakening of ego boundaries. Until recently psychoanalytic views have dominated the literature on self-esteem in schizophrenia. Cameron (1947) suggested that the childhood experience of the person with schizophrenia leaves them with a feeling of inferiority, unworthiness and guilt. It has also been suggested that rejection by others was the cause of schizophrenia (Weinberg, 1967; Grinker and Holzman, 1973). One of the most prolific writers on this subject, Arieti (1974) regarded the social withdrawal of the schizophrenia patient as protection against failing self-esteem arising from the family state, the mother's anxiety and despair for poor parenting and thus "schizophrenogenic effects". Arieti describes the 'preschizophrenic child' who because of his/her mother sees themself as very bad, cannot accept these feelings and employs defences such as separating the emotional impact of these constructs from consciousness. This repression is used to change the malevolent mother into a merely distressing one (Arieti 1974). This is a typical example of the type of psychodynamic model which has largely been discounted due to the wide acceptance of physiological evidence of the aetiology of schizophrenia and the many methodological faults of the work (Bebbington & McGuffin, 1988). It is also likely that this has led to the reluctance of psychiatry to consider the role of self-esteem in

schizophrenia. Nevertheless, studies with more emphasis on empirical data show interesting results.

Self-esteem and schizophrenia

Findings generally show a mixed picture. Some studies have found that discrepancies between self perceptions and ideals are no greater in schizophrenia than in normal subjects (Rogers, 1958; Ibelle, 1961). Kaplan (1975) found that patients with schizophrenia did not make more self rejecting statements than others. Others have found higher ratings of self-esteem particularly for paranoid subjects (Havner and Izard, 1962; Fitts, 1972). Findings from studies using direct measures of self-esteem have shown lower self-esteem amongst schizophrenia patients but also that people with schizophrenia often show relatively moderate lowering of self-esteem as compared to depression (Robson, 1989, Silverstone, 1991).

Examining self-esteem within a condition simply by looking at the levels of self-esteem, while interesting, implies a simplistic relationship, e.g. that low self-esteem may be a symptom resulting from schizophrenia. As discussed earlier we know from theoretical models that self-esteem is not a symptom but a complex psychological process/phenomenon which is influenced by experience, personal development, social environment and other psychological processes, and also that self-esteem is not generally considered to be a unitary concept but is composed of various elements. A recent study using a more sophisticated approach and techniques of measurement found that people with schizophrenia have lower self-esteem than normals in all components of a Sources of Self-esteem Inventory except for the defensive self enhancement scale

where they achieved higher scores (Garfield, Rogoff and Steinberg, 1987). This finding is similar to the idea that patients with paranoia and persecutory delusions may be protecting themselves from low self-esteem.

Paranoia, depression and self-esteem.

A close relationship between paranoia and depression, and thus self-esteem, has been asserted by theorists including Zigler and Glick (1988) who believe that paranoia may be an overt manifestation of an underlying depression. It has been suggested that depression and low self-esteem can lead to paranoia through a defence mechanism which makes it easier to be persecuted by others than by oneself. The feeling of being a failure is projected into being thought of as a murderer, for example, the idea behind this being that although the projected persecution is painful it is not damaging to the individuals self-esteem (Zigler and Glick, 1988). It has also been suggested that paranoid patients who are exhibiting depression express more suicidal ideas than those who are not depressed (Candido and Romney, 1990). Heilbrun and Bronson (1975) were able to induce paranoid thinking in normal subjects in response to negative evaluation, supporting the idea that environmental factors precipitate the disorder.

The relationship between paranoia and notions of the self has been explored extensively by Bentall (e.g. Bentall et al, 1994), who suggests that persecutory delusions reflect an exaggeration of cognitive biases observed in normal individuals, and that delusions can be seen as an extreme method of maintaining self-esteem by attributing the cause of negative events to external factors.

Although there is now evidence on the relationship between self-esteem and patients with paranoid delusions, this cannot be generalised to most patients with a diagnosis of schizophrenia. (Difficulties over the concept of schizophrenia have been described above and will be discussed in more detail later.) It is from the evidence of self-esteem studies in general, and from knowledge of the quality of life of people with schizophrenia that assumptions about the role of self-esteem can be made.

The role of self-esteem in schizophrenia

As has been stated self-esteem develops from our perceptions of ourselves, others perception of ourselves and our pretensions and aspirations. If, as according to James (1890), self-esteem is a function of successes in relation to pretensions then people with schizophrenia must be vulnerable to low self-esteem. Schizophrenia, its symptoms and course and its emotional and social consequences mean that in comparison to normal standards and expectations patients have few successes. For example, they are usually unable to work, lacking drive to do much, have poor relationships with others and males are particularly unlikely to marry or have children. This indicates the difficulty that schizophrenia patients would have in gaining self worth from the interpersonal and achievement domains which are considered important in the structure of self-esteem (James, 1890; Harter, 1983). In addition, the social stigma that accompanies schizophrenia means that 'other's perceptions' are likely to be devaluing, and as self perceptions are based on our experience of the world it would seem highly unlikely that people with schizophrenia would have normal levels of self-esteem.

Strong links between depression and self-esteem including the identification of vulnerability factors and their relationship with life events suggest that self-esteem may be very important in the course of schizophrenia. For example, many people with schizophrenia fall into the categories of vulnerability pointed out by Brown and Harris (1986) and Ingham et al (1986), such as having a lack of confidants, lack of employment and lack of social support. There is also an association between the emotional environment of the family and exacerbation of symptoms and relapse (Leff & Vaughn, 1985) which, as will be discussed later, also indicates a prominent role for self-esteem in the course of schizophrenia.

Before examining the role of self-esteem in relation to other factors which have been associated with the course of the illness it will be of benefit to place the discussion in the context of a model of schizophrenia.

Models of schizophrenia

The search for the cause and meaning of schizophrenia has been long, arduous and often fruitless. Various aetiological theories have developed over the years ranging from those which emphasise primarily social explanations to those which view schizophrenia as an organic illness (Bebbington & McGuffin, 1986). More recently integrated aetiological models of schizophrenia, have a vulnerability/stress framework stating that social factors can act together with neurobiological factors to determine the timing and the onset of schizophrenia (Zubin and Spring, 1977; Liberman, 1986; Neuchterlein, 1987). Described by Bebbington and Kuipers (1988) as the arousal theories, they correspond to the views that schizophrenia patients can respond abnormally to stress

and/or may also be abnormally sensitive to stress. This widely accepted vulnerability/stress model of schizophrenia pertains to psychosocial factors which influence the course of the illness. Closer examination of this model will provide a context from which the thesis can be viewed.

Vulnerability/Stress Model

The vulnerability/stress model of schizophrenia states that the course of schizophrenic disorders results from the interaction of vulnerability, stress and protective factors. This integrated model recognises the strong role of genetic influences on the emergence of schizophrenia, the evidence of neurobiological abnormalities and also the part that the social environment and psychological factors play in the course of the illness and relapse. The influence of genetics is a major feature of the model but for the purposes of this thesis a full discussion of this is unnecessary. Suffice to say that there is a large amount of evidence from family studies which shows that schizophrenia substantially aggregates in families (Kendler and Diehl, 1993). Although the genetic contribution gives a hereditary predisposition to develop the illness vulnerability factors are necessary for the onset of the illness.

Within this model vulnerability factors are conceptualised as enduring neurobiological abnormalities of people at risk for schizophrenia and are present prior to the onset of illness and during and after psychotic episodes (Zubin and Spring, 1977; Neuchterlein and Dawson, 1984). Although genetic predispositions and vulnerability factors play a critical role in the initial development of schizophrenia, it is now well established that the course of the illness, particularly in terms of relapse, is greatly influenced by

social/environmental stressors which include stressful life events and stressful family environments.

Discussion of vulnerability factors has remained in the field of neurobiology and has not yet incorporated any psychological vulnerability in the period before onset. In a recent tentative expansion of the model Neuchterlein et al (1994) describe psychological factors as protective factors. Personal protectors are postulated to be coping and self efficacy while environmental protectors are regarded as effective family problem solving and social support. Treatment approaches are also incorporated in this model as protective factors. Antipsychotic medication is seen as a personal protector and supportive psychosocial interventions are regarded as environmental protectors. The model of relapse and illness course states that increases in vulnerability factors or environmental stressors or decreases in protective factors are viewed as possible sources of relapse (Neuchterlein et al, 1994). Strong evidence exists that increases in environmental stressors and/or decreases in antipsychotic medication can lead to relapse, however there is, as yet, no direct evidence that reductions in self efficacy or coping have lead to relapse (Liberman, 1986). This model does suggest however a prominent role for self-esteem in the course of the illness.

The next two sections of the introduction present more detailed examination of the literature which will lead to specific hypotheses about the role of self-esteem.

Part 1: Psychosocial factors in the course of schizophrenia

The social environment of patients with schizophrenia has been an area where a large amount of research has taken place. Psychosocial factors investigated include those which are symptomatic of the illness such as social skills and social functioning. This study concentrates on those which have been found to influence the course of the illness - life events, expressed emotion and social support - the environmental stressors and protector in the vulnerability/stress model. The following discussion examines these factors, the literature around them and the hypotheses related to self-esteem which may be drawn from them.

Stressful life events

Several researchers have postulated that schizophrenia and its symptoms are influenced by stressful life events (Zubin and Spring, 1977; Neuchterlein and Dawson, 1984; Weinberger, 1987; Boker et al, 1989). Life events are usually defined as external and uncommon events, such as bereavement, loss, acute illness, and divorce, which are undesired and uncontrolled. A review of the associated literature by Norman and Malla (1993) attempted to illuminate the exact nature of the relationship between life events and schizophrenia. In comparisons of the various empirical studies in this area they found some evidence that schizophrenia patients experienced more stress than the general population, 36% of comparisons showed a higher reporting of events among the schizophrenia group. There was no evidence that schizophrenia patients had more stressful events than patients with other conditions and in fact 56% of their comparisons showed that other psychiatric groups reported significantly higher levels of stressors. The area where most significant results were found was in relating levels of stress to

severity of symptoms, where 77% of comparisons showed findings of higher levels of antecedent stress being associated with worse symptoms.

The role of life events as precipitating factors which trigger relapse in schizophrenia has been examined for many years (Brown and Birley, 1968, 1972; Leff et al, 1973; Day et al, 1987; Dohrenwend et al, 1987; Ventura et al, 1989). Several studies have suggested a link between life events in the period before onset and the emergence of schizophrenia (Brown and Birley, 1968; Canton and Fraccon, 1985; Al Khani et al, 1986; Day et al, 1987). Some studies found that only life events occurring in the two weeks prior to relapse were important (Day et al, 1987; Ventura et al, 1989), while others found that a longer duration and/or a cumulative effect of exposure to life events would effect relapse (Canton and Fraccon, 1985; Dohrenwend et al, 1987; Bebbington et al, 1993, Hirsch et al, 1996).

The 'triggering' hypothesis has not been clearly established due to the variety of findings in the literature. Various methodological problems exist in these studies such as biases or errors in recall, differing definitions of relapse or the possibility that increased symptoms influence levels of stressors. Longitudinal studies by Hardesty et al (1985), Ventura et al (1989) and Malla et al (1990) address some of these issues by using repeated measures of levels of stressors and symptoms to relate changes in stress and symptoms over time. Hardesty et al (1985), found a relationship between changes over time in life event stressors and the negative symptom of withdrawal. Ventura et al (1989) and Malla et al (1990) found evidence of increase in positive symptoms such as thought disorder, hallucinations and delusions.

Although much of the literature suggests that life events do influence the course of schizophrenia the triggering hypothesis is not clearly established due to the variety of findings in the literature (Hirsch et al, 1996). Contributing to this may be the reliance on a simple correlational finding. Stress-symptom relationships are likely to be influenced by a complex set of mediating variables including the other environmental stressors, protective factors and vulnerability factors discussed in vulnerability/stress models. Hirsch et al (1992) points out that a prospective study which takes into account the possible mediatory effects of neuroleptic treatment and psychosocial factors such as expressed emotion and coping mechanisms is required. A study incorporating some of these variables (Leff et al, 1983) examined the influence of social factors as measured by life events and expressed emotion and the modifying effect of medication. The findings of this study suggest that the presence of a life event and exposure to high expressed emotion were required for a patient on medication to relapse. The impact of life events and high EE is assumed to be additive contributing to an overstimulating social environment (Leff, 1987).

Although the process is not clearly established the various studies discussed do show some relationship with life events and the course of schizophrenia and it is likely that the presence of recent life events may contribute to lowering of mood, self-esteem and stress in the family. It is therefore important that this is taken into account in any study examining this area. The influence of psychosocial factors in schizophrenia is more clearly demonstrated by the studies on expressed emotion.

Expressed Emotion

Outcome in psychiatric patients has, for many years, been linked to the social environment (Brown, 1959). One aspect of this has since developed into the theory of "Expressed Emotion". A series of studies has indicated that the presence of high levels of EE defined as critical comments, hostility or emotional over involvement, among the significant others of schizophrenia patients is predictive of a higher rate of relapse in the 9 - 24 months following hospital discharge (Brown et al, 1972; Vaughn and Leff, 1976a; Vaughn et al, 1984; Moline et al, 1985; Neuchterlein et al, 1986; Karno et al, 1987; Leff et al, 1987). Critical comments are unfavourable remarks about the patient's personality or behaviour, identified particularly by tone. Hostile remarks have a clear relationship with criticism. Emotional over involvement is comprised of over protection, self sacrifice, emotional upset and inappropriate levels of worry. The basic predictive relationship between EE and relapse has been established and relapse rates found in patients who are exposed to high EE are usually 2 to 4 times greater those who are not (Leff and Vaughn, 1985; Bebbington & Kuipers, 1988).

In the last decade there have been a large number of studies on expressed emotion. In an attempt to standardise methods and clarify findings. Bebbington and Kuipers (1994) gathered data from 25 EE studies from around the world, aggregated and analysed the data which consisted of 1346 cases. They concluded from the analysis that: location did not appear significantly to influence the relationship between EE and relapse; the association between EE and relapse was almost identical in the medicated and medication free groups; close contact with a high EE relative increases the risk of

relapse; for patients living with a low EE relative contact seems protective. A number of issues remain unclear, however, such as the direction between EE and relapse.

Within the framework of the vulnerability/stress model it is assumed that high EE is an environmental stressor that leads to relapse. Alternative explanations have been postulated. Neuchterlein et al (1992) investigated the possibility that the strain of living with a schizophrenia patient elicits the negative attitudes of relatives, and that the association between EE and relapse is an epiphenomenon as the severely disturbed patient is likely to elicit these attitudes and to have psychotic relapses. Findings from studies on first episode schizophrenia suggesting a developmental path of EE (MacMillan et al, 1986; Birchwood and Smith, 1988; Stirling et al, 1991) could support this hypotheses as increased exposure to the patients illness may increase negative attitudes. In path and structural analysis of the inter-relationships between age at onset of illness, patients residence before admission, level of EE and psychotic relapse, findings did support the possibility that EE is partly a response to characteristics of the patient. On reviewing all the findings, however, Neuchterlein et al (1992), concluded that rather than an epiphenomenon, high EE, once developed, operates as a mediating variable consistent with the vulnerability/stress model of relapse.

Other questions which have arisen in the literature include how low EE families protect against relapse and what is the actual process or mediating variable between high EE and relapse. It may be assumed that the answer to one of these questions would enlighten understanding of the other. Examination of the family interventions aimed at reducing relapse may aid understanding.

Family Interventions

The main objectives of such interventions include providing support for the family, enabling understanding of the patients behaviour, crisis intervention, problem solving, stress management, reducing High EE and thus preventing relapse. Several controlled studies of family interventions have taken place since the early eighties (Leff et al, 1982; Falloon et al 1985, 1987; Cardin et al, 1986; Hogarty et al, 1986,1991; Tarrier et al 1988, 1989; Barrowclough and Tarrier, 1990). These interventions were provided on an outpatient basis to families with high expressed emotion. Although the interventions employ different formats and goals of treatment they were similar in many ways. Nearly all interventions were successful in reducing relapse and expressed emotion in families and the outcome measures in most studies concentrated on these variables. Other outcome measures have included social functioning, economic cost and burden of care (Barrowclough & Tarrier, 1990; Falloon & Pederson, 1985; Brooker et al, 1992), but there has been no measure directly aimed at understanding intrapsychic changes in the patient. The findings on social functioning do, however, indicate which changes may be taking place.

Falloon et al (1985) provided treatment for the whole family, including the patient. In comparison with a control group of patients receiving individual psychotherapy, the family treatment resulted in fewer hospitalisations and improvement in social functioning. Follow up assessment at 9 and at 24 months suggested that patients in the family treatment group were improving on social functioning while those who received individual therapy were maintaining their baseline functioning or deteriorating.

Barrowclough and Tarrier (1990) carried out a comparison of social functioning in patients living with high and low EE relatives and investigated the possibility that patients levels of functioning may vary with the patterns of scores on the component measures of EE. The findings suggested that patients living in high EE households were functioning at a significantly lower level in the overall SAS score and in several sub scores. It was also indicated that the differences in social functioning in patients from high and low EE households are associated with significantly lower levels of functioning in patients who live with hostile relatives. The underlying process involved in the improvement of social functioning was not established, but, ideas proposed were that reductions in expressed emotion and improvements in family functioning enhanced the rehabilitative resources of the family or, alternatively, that the improved functioning found may have contributed to the reduction in criticism and negative attitudes on the part of the families (medication was not associated with increased social functioning) (Falloon et al, 1985; Barrowclough & Tarrier, 1990).

Recent developments in the field of expressed emotion have addressed causal attributions in family members. Barrowclough et al (1994) found that relatives low on EE or high on emotional over involvement attributed patients problems to external factors uncontrollable by patients. Those high on criticism attributed causes of difficulties as internal to patients and those high on hostility saw problems as controllable by and personal to the patient. They found attributional variables to be better predictors of relapse at 9 month follow up than EE variables. It is likely that there is interaction between all of these factors, but as yet research has been unable to identify specific elements of treatments or to elucidate the process underlying treatment effects.

Combined with the findings on social functioning this implies that relapse and poor social functioning are likely to be associated with high EE where the emphasis is on hostility and blame directed at the patient. This has clear implications for the role of self-esteem in the process as the low regard implied by such characteristics in the family would impact on the patients evaluation of self.

The many unanswered questions in the work on expressed emotion may be considered part of what has been described as the 'Black box' of EE (Jenkins & Karno, 1992). There is seen to be a theoretical impoverishment of the EE construct which is regarded as a measurement that does not arise from theory (Jenkins, 1991). Criticism of the lack of detailed theory on processes between EE and relapse is warranted but as is seen from the earlier discussions EE is associated with theoretical concepts such as the vulnerability/stress model, environmental stressors such as life events and protective factors such as social support. It is an aim of the present study to show that self-esteem is another factor which is associated with expressed emotion.

Self-esteem, expressed emotion and relapse

Looking more closely at the components of expressed emotion (EE) suggests that individuals living in a high EE environment may be vulnerable to experiencing low self-esteem. For example, criticism, which is defined as dislike or disapproval of behaviour, combined with hostile remarks may lead to a feeling of low self worth. Emotional over involvement which is comprised of over protection, self sacrifice, emotional upset and inappropriate levels of worry treats the patient like a child who is vulnerable. Overall

the patient is perceived and may perceive themself as less competent which would influence self evaluation and thus self-esteem.

Although, due to lack of research, there is no empirical evidence that low self-esteem is part of the mediation from high EE to relapse, there are some findings which suggest such a position. Leff et al (1983) concluded that in patients unprotected by medication, relapse may be occasioned by either living with a high EE relative or by experiencing a life event. In patients receiving medication, however, relapse required the experience of both a high EE relative and a recent life event. In this model medication operates to raise the threshold for the psychosocial stimulus of relapse, which suggests that expressed emotion and life events may have a common mechanism (Leff et al 1983). Reviewing studies on depression and life events (see above) shows that low self-esteem may predispose a person to depression in the face of a life event. It is possible that self-esteem may have a similar role in the relationship between expressed emotion and schizophrenic relapse. That is low self-esteem may act in the mediation from high EE and/or life events to relapse. Self-esteem may be seen as a protective factor as suggested by Neuchterlein et al (1992). Damage to self-esteem perhaps due to family stress (EE) may reduce protection and thus precipitate relapse.

Although more recent studies on expressed emotion have shown the relationship with relapse to be more complex than first anticipated, they continue to suggest a link with self-esteem. MacMillan et al (1986) in a study of first episode schizophrenia found that although EE did not have predictive validity duration of the illness is an important factor. Similarly, Birchwood and Smith (1988) suggest that the association between

EE and illness is in part developmental and therefore less likely to be found in early stages of the illness. This was supported by Stirling et al (1991) who report that in the early stages of schizophrenia there are low levels of critical comments and relatively high emotional over involvement. It was suggested that this may reflect heightened concern and protectiveness of relatives in the early stages. This developmental theory suggests links with self-esteem, as the experience of the onset and course of a schizophrenic illness, such as loss of employment, impairment in cognitive functioning, social stigma and isolation through to complete dependence on others, leaves a person progressively more vulnerable to low self-esteem.

If there are links between EE and self-esteem it may be expected that there would be signs of low self-esteem during periods when EE is often found to be at high levels, i.e. prior to relapse. Findings of research into prodromal symptoms in schizophrenia found that early symptomatic changes of a non psychotic nature such as depression, anxiety, sleeplessness, dysthymia, interpersonal sensitivity and withdrawal preceded low level psychotic thinking and subsequently psychotic relapse (Birchwood et al, 1989; Marder et al, 1991; Malla and Norman, 1995). These dysphoric symptoms have been reported by patients, families and professionals. Dysphoria can in many cases meet the diagnostic criteria for depression. Depression is usually accompanied by low self-esteem therefore findings on prodromal dysphoric symptoms suggest that self-esteem may be involved prior to relapse. There is also evidence for high EE causing relapse in depression, first reported by Vaughn & Leff, (1976) and replicated in more recent studies (Hooley et al, 1986), which may add weight to the argument that low self-esteem is present prior to relapse.

The possibility that high EE contributes to dysphoric symptoms via reduction in self-esteem has not been investigated and is beyond the remit of the current study. However, overall the literature examined does suggest hypotheses which will be tested in the current study. It is hypothesised that expressed emotion will show a negative correlation with levels of self-esteem and that the components of expressed emotion which will have the strongest correlation will be criticism and hostility.

So far the discussion has concentrated on environmental stressors, however, examination of the proposed protective factor of social support may add to information on the possible role of self-esteem being an additional protective factor.

Social Support

Research on social support in schizophrenia has tended to concentrate on the consequences of lack of support, e.g. in the construct of expressed emotion. The availability of social contacts has been studied mainly in terms of the size of social networks. The social functioning of schizophrenia patients is an area of severe impairment for many individuals (Wing, 1978). Social withdrawal and poor social skills, marked features of many patients, are thought to contribute to the poor social networks which have been found in schizophrenia (Henderson et al, 1978; McFarlane et al, 1981;Creswell et al, 1992). Social networks have been reported from as low as 4-5 people (Henderson et al, 1978; McFarlane et al, 1981) which is very small compared to primary networks (those people with interaction and commitment such as family and friends) of 40 for 'normal' samples (Hammer et al, 1978; Henderson et al, 1981).

Network size has been associated with admission to hospital (Cohen & Sokolovsky, 1978) and in a World Health Organisation study good social contact was found to be a main predictor of favourable outcome (Strauss & Carpenter, 1972). In attempting to discover when social contacts diminish for schizophrenia patients Lipton et al (1981) found that first admission patients had considerably larger and more interconnected networks than those patients with multiple admissions. Holmes-Eber and Riger (1990) found that patients with more and longer stays in hospital had networks composed of few friends and relatives but of professionals and acquaintances within mental health services. This reflects the social withdrawal and isolation experienced by many patients. Assumptions which may be drawn from these findings are that patients may lose social contacts over the course of the illness and that satisfactory social networks may be a protective factor from hospital admission or relapse.

It is generally accepted that the primary group of the social network principally fulfils the function of social support (Dean & Lin, 1977; Henderson et al, 1978). As in depression (Brown et al, 1986) it has been suggested that social support in the form of a confiding person acts as a buffer against stress for schizophrenia patients (Cohen & Wills, 1985). Most of the recent work on social networks and social support in schizophrenia has focused on the quantity of contacts rather than the quality of the relationships. Social support is more than a quantitative marker and is distinguished from social networks in the sense that it provides qualitative relationships where people have the knowledge that they are cared for, valued and are part of a network of mutual obligation (Creswell et al, 1992). In a study of social support in schizophrenia patients Cresswell et al (1992) found that despite small networks the perceived support from

significant relationships was adequate. It was concluded that one or two close ties can compensate for lack of support from others. In the event of a stressor most patients desired a combination of practical and emotional support usually sought from a professional. Patients with more negative symptoms were less likely to seek support and to claim that they did not want help. Patients with more positive symptoms had networks which were qualitatively and numerically more impaired and were less likely to seek support. This implies a direct role for staff in providing support when stressors arise.

Neeleman and Power (1994) compared patients with chronic schizophrenia with depressed patients and those with a history of deliberate self harm. The schizophrenia patients had smaller primary networks than the others and consistent with the findings of Cresswell et al (1992) most of their emotional and practical support came from relatives rather than a partner or friend. They also reported significantly higher levels of loneliness. It was found, however, that their perceptions of support were higher than the other groups, and that they did not desire more support. Wing (1978) has suggested that patients with chronic schizophrenia may find too much support intolerable because of its arousing effects and it has been suggested that perhaps patients although describing loneliness are aware that too much support may lead to increased stress and perhaps relapse (Neeleman & Power, 1994). Difficulties in relationships are a major feature of schizophrenia, and patients may have poor experiences including high expressed emotion, impairments in social skills, rejection from others and various consequences of the social stigma of mental illness. It is hardly surprising therefore that patients may be reluctant to seek further relationships. In addition, as described above,

such experiences may lower self-esteem and make people feel unworthy of more support and have fewer expectations therefore reducing their levels of ideal support. The relationship between social support and self-esteem in schizophrenia has not yet been established, however, this assertion is supported by some of the findings on social support and depression.

As described earlier lack of social support is well established as a vulnerability factor in depression (Brown & Harris, 1978; Bebbington et al ,1984) and has been found to correlate highly with self-esteem (Brown et al, 1986; Ingham et al ,1986). Beck and colleagues (1979) suggested that vulnerability to depression was associated with abnormally high expectations for social support. It has also been proposed that social support is likely to be considered unsatisfactory regardless of the actual level (Henderson et al, 1981). This was confirmed by Power et al (1988) in a study of a subclinically depressed population. However, in Neeleman & Power's (1994) later study, of patients with more severe depression it was found that ideal levels of support were less than those of the other groups. One interpretation for this was that prolonged exposure to perceived or actual lack of support may reduce high expectations that existed pre-morbidly (Neeleman & Power, 1994). Or to describe this another way, low self-esteem resulting from prolonged exposure to lack of support may lower expectations.

If this were also to be the case in schizophrenia patients it would be expected that low levels of self-esteem would be associated with lower levels of ideal support or of less discrepancy between perceived support and ideal support. It is therefore hypothesised in

the present study that levels of ideal support will be related to levels of self-esteem. It is also hypothesised that low perceived levels of social support will be related to low self-esteem.

Part 2: Indications for the Application of Cognitive Behaviour Therapy to Target Self-Esteem

The main aim of the present study is to establish the role of self-esteem in the course of schizophrenia. However, if self-esteem does play an important role it is relevant to examine how it may be improved for this client group. The study may show that social support and expressed emotion are related to self-esteem, however, it is not always possible to influence these factors, which in most cases are out with the control of the patient and the services providing care. This study discusses the appropriateness of cognitive behaviour therapy in targeting self-esteem in schizophrenia. The following section will examine the application of cognitive therapy and discuss the cognitions related to self-esteem in schizophrenia which may be amenable to change.

Cognitive behaviour therapy and schizophrenia

The introduction of cognitive behaviour therapy for psychotic disorders has developed as direct interventions for specific symptoms such as auditory hallucinations (Haddock et al, 1993; Chadwick and Birchwood, 1994; Bentall et al, 1994) and delusions (Fowler and Morley, 1989;Chadwick and Lowe, 1990; Chadwick and Birchwood, 1994), as methods for enhancing coping strategies (Tarrier et al, 1993) and as part of a normalising rationale to reduce the distress of disturbing experiences (Kingdon and Turkington, 1991, 1994).

Interventions vary but are based on the principles of cognitive behaviour therapy and usually follow a series of stages beginning with engagement and assessment and collaborative discussion of the vulnerability/stress model of psychotic disorder or schizophrenia. Specific difficulties can then be targeted by the implementation of cognitive behavioural coping strategies for psychotic symptoms, strategies for delusional beliefs and beliefs about voices, cognitive therapy for dysfunctional assumptions and social disability and relapse management strategies (Fowler et al 1995). Outcome studies in this area are still relatively few and most concentrate on single case design, however, there have been very promising results (Haddock and Slade, 1996).

Fowler et al (1995) used an integrative approach based on a careful cognitive formulation and found this to be effective in a series of single case studies and also in a controlled trial by Garety et al (1994). Other researchers have emphasised and evaluated more specific interventions. Enhancing coping strategies using cognitive behavioural techniques was evaluated by Tarrier et al (1993) and found to be more effective in symptom reduction than problem solving methods. They concluded, however that a more comprehensive approach such as that proposed by Fowler et al (1995) may be more beneficial. Belief modification approaches have targeted delusions and beliefs about the psychotic experience. Chadwick and Lowe (1994) reported reductions in the strength of delusions and in some cases delusions were rejected completely. Psychoeducational approaches from a cognitive behavioural perspective have shown changes in individual beliefs about the nature of psychosis and have led to increased medication compliance and strategic life changes (Fowler,1992). Similarly

Kingdon and Turkington (1991, 1994) found that relabelling and normalising therapy, which offered destigmatising information about psychotic disorders and emphasised that they may be continuous with normal experience, was acceptable to patients and their families and had beneficial effects.

These various approaches all target areas which are likely to be associated with self-esteem, but no study has targeted self-esteem directly. There is some evidence, however, that improved self-esteem may be an outcome of cognitive behavioural interventions. Haddock et al (1996) report a study of treatment for auditory hallucinations which compared the use of focusing and distraction techniques as a way of reducing the frequency and distress associated with voices. Focusing therapy aims for changes in the patient's awareness of their hallucinatory experience and the reattribution of the voices to the self. This is carried out by focusing closely on the relationship of a person's thoughts to the physical characteristics, contents and the meaning of the voices. With traditional behavioural distraction techniques, on the other hand, it is hypothesised that distraction from the voices will allow them to extinguish. Both treatments produced significant effects on the duration of time the person hallucinates and the disruption to life caused by them. Benefits were also found on the distress caused by the voices. There was no difference between the focusers and distractors on these measures, however there was a significant difference found on the measure of self-esteem. This was not a specific target of the study but focusers were found to have increased self-esteem post therapy, while distractors self-esteem was reduced. The authors were not clear what this could have been attributed to, but speculated that the process of exploring the content of experience and relating it to current beliefs and life

situation may have been involved in the focusers increase, while ignoring the meaning of the voices contributed to the decrease for distractors (Haddock et al, 1996).

The outcome data from cognitive behavioural interventions in psychosis show that changes in patients' beliefs can be achieved and can influence symptomatology. In trying to establish the effects of these interventions on self-esteem in patients with schizophrenia it is necessary to elucidate the kind of cognitions and beliefs of these patients which may be related to self-esteem.

Self-esteem related cognitions of schizophrenia patients

Particular beliefs of patients with schizophrenia about the illness itself, how it is conceptualised and the level of perceived control over its course have been found to be associated with outcome of the illness including ideas about self (Birchwood et al, 1993; Mechanic et al, 1994). In psychosis generally, researchers have found that dysfunctional beliefs about self and others can be modified by cognitive behavioural interventions and lead to improvements in symptoms (Bishay et al, 1989; Fowler, 1992). Closer examination of the literature in theses areas indicates the likely associations with self-esteem.

Patients beliefs about schizophrenia

It may be assumed that the effect of schizophrenia on a persons self-esteem would be related to their conceptualization and attributions of the illness. The evidence of stigmatising beliefs about mental illness in the general population is well established (Link, 1987). One theory is that patients may incorporate this stigma into their sense of

self and define themselves in terms of negative characteristics (Link, 1987). A study by Mechanic et al (1994) compared schizophrenia patients who saw their life difficulties in physical, medical or biological terms, with those who attributed their problems to a mental illness. It was hypothesised that people with schizophrenia who have a medical/biological conception of their problems will be more satisfied with social relationships and life generally, than those who conceptualize their problem as a mental illness as the mental illness concept will undermine these aspects of quality of life by increasing a sense of social stigma and decreasing self-esteem. The authors found evidence for their hypothesis in that those who related their life problems to a mental illness had fewer social relationships and decreased self-esteem, both contributing to a reduced quality of life.

These findings, however, go against previous work in this area which suggested that acceptance of a mental illness label was not sufficient for lowered social functioning (Warner et al, 1989; Taylor & Perkins, 1991). Birchwood et al (1993) found that label acceptance alone was not associated with lowered depression, or self-esteem, but that the factor of perceived control over the illness statistically accounted for the difference between depressed and non-depressed groups.

It appears that the outcome of illness attribution is affected by the patients ability to keep their identity separate from the acceptance of the label of psychotic disorder. This may be possible if a person accepts a diagnosis of psychotic disorder and then uses an understanding of psychotic illness as a guide to take control of their problems, and has been supported by research (Taylor & Perkins, 1991; Birchwood et al, 1993). This

provides a clear theoretical basis for cognitive behaviour therapy which employs explicit education about psychotic disorders, aims to reattribute blame to illness rather than personal failure and teaches self regulatory strategies to enhance control (Fowler et al, 1995). The present study aims to add to the findings on perceived control and illness attribution in relation to self-esteem, thereby indicating the potential for cognitive behaviour therapy to target self-esteem.

The attribution a patient has about the cause of their illness is likely to influence their perceived control over it, but the evidence from Birchwood et al (1993) does suggest that perceived control is more likely to be related to self-esteem. It is therefore hypothesised that perceived lack of control over illness will be related to low levels of self-esteem. It is also hypothesised that illness attribution will be related to self-esteem, but the direction of the relationship is not predicted. A further hypothesis is that perceived control over illness will be the better predicter of the two.

Dysfunctional assumptions in schizophrenia

Dysfunctional beliefs about self and others are, from clinical experience, reported to be commonly identified in patients with psychotic disorders (Fowler, Garrity and Kuipers, 1995). It has been suggested that these should be a central focus of cognitive therapy for psychotic patients (Perris, 1989). An outcome study by Perris (1989) found that identifying and disputing dysfunctional beliefs showed significant improvements in clinical and social functioning which were maintained at a three year follow up. Bishay et al (1989) described similar results in patients who had delusions of jealousy related to dysfunctional assumptions. Dysfunctional beliefs of worthlessness, unlovability and

perceived threats from others which were related to delusions, were challenged in a study by Fowler (1992) resulting in improvements in psychotic symptoms and associated depression and social anxiety. Garety et al (1994) had similar findings. It is clear then that dysfunctional beliefs occur in some psychotic patients and can be tackled by cognitive therapy. However, most of the studies discussed had small samples and the prevalence of dysfunctional assumptions in patients with schizophrenia is not clear. Nor is the relationship between such beliefs and self-esteem. If it is the case that self-esteem is related to dysfunctional assumptions about self and others this is another indicator that cognitive behaviour therapy could be employed to increase self-esteem. The present study hypothesises that there will be a marked prevalence of dysfunctional assumptions in patients with schizophrenia and that these will be related to levels of self-esteem.

II. OBJECTIVES AND HYPOTHESES OF THE STUDY

Study Objectives

The two major objectives of the study are:

To investigate the role of self esteem in the course of schizophrenic illness, particularly in relation to levels of expressed emotion, social support and major life events.

To establish the nature of core beliefs about self, and their illness and the prevalence of dysfunctional attitudes, thereby indicating the potential of cognitive therapy as a means of improving self-esteem in schizophrenia patients.

Study Hypotheses

The relationship between self-esteem and expressed emotion

1. High expressed emotion will be associated with poor self-esteem.
2. The 'criticism' and 'hostility' components of expressed emotion will show the strongest correlation.
3. High expressed emotion will be more predictive of low self-esteem than perceived social support or recent life events.

Self-esteem and social support

4. Low perceived levels of social support will be related to low self-esteem.
5. Low levels of ideal support will be related to low levels of self-esteem.

Patients cognitions and self-esteem

6. Perceived lack of control over illness will be related to low self-esteem.
7. Illness attribution will be related to self-esteem.
8. Perceived control over illness will be a stronger predictor of self-esteem than illness attribution.
9. There will be a marked prevalence of dysfunctional assumptions and these will be related to levels of self-esteem.

III. METHODOLOGY

The study is designed to measure associations between the study variables, at one point in time, in a cross sectional sample of schizophrenia patients and their nominated significant other. This section describes the recruitment of patients, the assessment techniques employed, the actual procedure of the study and the method of analysis.

Recruitment of Patients

Patients were recruited via consultant psychiatrists based at two centres:

Bellsdyke Hospital, Central Scotland Health Care NHS Trust

Royal Cornhill Hospital, Grampian Health Care NHS Trust.

The decision to use two centres was not part of the study design but for practical reasons as the author was based in both locations for training placements during the course of the study. Ethical approval for the study was obtained for both centres.

Consultant psychiatrists were informed of the study and invited to assist in the recruitment by identifying adult patients with a DSM IV diagnosis of schizophrenia. Criteria for exclusion from the study were: acute psychosis at the time of recruitment to study, alcohol or drug dependence or marked intellectual impairment.

Patients who met the study criteria were allocated to the study via outpatient clinics and rehabilitation units. Consultants who agreed to cooperate with the study either introduced patients to the author or provided the author with the patients name and address to be contacted by letter. Patients who were introduced by their psychiatrist were given a study information sheet (Appendix 1) and verbally explained the procedure

of the study. If the patient elected to take part in the study an interview time was arranged. Patients contacted by letter were given full details of the study and offered appointment times to meet for a research interview or to discuss recruitment to the study (Appendix 2).

A total of 70 patients were contacted using these methods. Of these, 30 patients either positively declined to take part in the study (18) or passively refused by not responding to the letters sent (12). Demographic details of the patients who positively declined were not available, however, of those who did not reply to letters the majority (9) were male. Of the 40 patients who agreed to take part in the study 6 were considered by the author, during interview, to be have cognitive deficits which prevented them from understanding the questions and items of the research measures. These patients who were consequently excluded from the study, were all in an older age range, above 45, and had a long term chronic illness. A final figure of 34 patients were allocated to the study.

With regard to recruitment of patients significant others, 6 patients refused permission to make contact, 1 patient could not name a significant other and in 4 cases it was deemed by the author inappropriate to approach them either due to their ill health or very old age. Consequently, 23 of the patients nominated significant others were invited to take part in the study by completing a self report questionnaire. All of these individuals were contacted by letter (Appendix 3), and 14 (61%) of them agreed to take part and returned the completed questionnaire.

In summary, 34 adult schizophrenia patients and 14 of their named significant others were recruited to the study.

Socio-demographic and clinical data

Data on socio-demographic characteristics and clinical information relating to diagnosis, duration of illness, number of hospital admissions and current servives were obtained from the patient at interview and verified from the psychiatric case notes. Appendix 4, shows the Patient Details form.

Assessment Measures

Two groups of assessment measures are described following the structure of the study objectives.

Part 1. The first group are the measures used to assess self-esteem and the variables associated with the clinical course of schizophrenia. i.e. social support, expressed emotionand life events. This also includes a measure of mental state or symptomatology, which was controlled for in the study. Copies of all the measures are included in Appendix 5.

Self-esteem: Self-esteem Questionnaire, Robson (1989).

This self-report questionnaire for measuring self-esteem was chosen as it was designed for use with psychiatric patients and has normative data for various clinical and 'normal' groups. It also has global and component factors of self-esteem which elicits more informative data than more traditionally employed unitary measures of self-esteem. It

provides scores on 5 components of self-esteem as defined by Robson (1989). It consists of 30 items categorised as follows: Factor 1: attractiveness and approval by others (5 items); Factor 2: worthiness, significance, contentment (6 items); Factor 3: autonomous self regard (5 items); Factor 4: competence and self efficacy (6 items); Factor 5: value of existence (5 items). For each of the items a statement is given and the patient asked to choose from a Likert-type 7 point scale, with four anchor points, ranging from 0 as completely disagree and 7 as completely agree. There is a balance of positive and negative questions to counter the tendency to acquiesce and categories are well mixed to reduce the halo effect. The questionnaire attempts to measure trait rather than state attributes by asking the patient to say how they feel typically.

Expressed Emotion: Level of Expressed Emotion Scale (LEE) (Patient and Relative Versions) (Cole and Kazarian,1988).

The expressed emotionscale is a measure of the patient's *perceived expressed emotion* from a close relative/partner/carer. Expressed emotion (EE) is traditionally measured from a video recording of a family interview by specially trained interviewers (Camberwell Family Interview (CFI), Vaughn & Leff, 1976). This method was not considered viable for the current study due to restictions of time and practicality. The LEE, while limited to a measure of perceived expressed emotion, has been found to have some significant correlations with scales of the CFI (Kazarian et al, 1990) and has also been shown to be predictive of relapse in a schizophrenia sample (Cole and Kazarian, 1993).

The scale consists of 60 items which reflect 4 behavioural and attitudinal correlates of the expressed emotion construct: 'Intrusiveness', 'Emotional response', 'Attitude towards illness' and 'Tolerance and expectations'. The patients version of the questionnaire elicits information on how the most influential person (significant other) in the patients life has behaved toward them in the past 3 months. The relatives version has the same items but asks how they themselves have behaved toward the patient over the same time period. Each item requires a true or false response.

Scores are produced for Total Perceived Expressed Emotion and for each of the four EE correlates. The LEE does not have a clearly established cut off point for high EE, but Cole & Kazarian (1993) in a study of predictive validity used the median of the total distribution (9) to calculate categories of high and low expressed emotion.

Social Support: Significant Others Scale, Power et al (1988).

This measure was developed to elicit information on perceived emotional and practical support from key individuals in the respondents life. It was chosen as it provides data on the quality of social support including the actual support received and ideal amount desired by the respondent. The scale has been used with this population before and also provides normative data for other clinical groups. Within a schizophrenia population, where social isolation is common, the scale also gives some indication of the individuals primary social network.

The scale samples a subset of up to seven individuals important in the persons life and is based on two items for each of the categories emotional and practical for each person

nominated. A seven point frequency scale is used ranging form 'never' (1) to 'always' (2), where a rating is made for actual support and for ideal support. The scale can be completed by self report or can be administered as an interview. Scores derived are levels of actual and ideal emotional support, actual and ideal practical support and discrepancy scores for emotional and practical support.

Life events: Life Events Inventory, Cochrane and Robertson (1973). (Modified)

A standard and widely employed measure of life stressors, the life events inventory questions patients about life events over the previous six months. On administration of the inventory the time period was anchored and frequent reminders were given throughout. As events are not consistently shown to be stressful for all patients (Paykel, 1983), the inventory was modified to ask if events which had ocurred were perceived as stressful or not. This produced scores for the total number of life events, the number of stressful life events and the number of non-stressful life events.

Symptomatology: The Manchester Scale, Krawiecka et al (1977).

This scale was developed for rating symptoms occuring over the previous week for chronic psychotic patients. It rates symptoms of depression, anxiety, delusions and hallucinations in addition to rating the negative symptoms of chronic schizophrenia including flattened or incongruous affect, psychomotor retardation, incoherence and irrelevance of speech and poverty of speech. Each of the symptoms are rated on a five point severity scale: '0' absent, '1' mild, '2' moderate, '3' marked, '4' severe. Ratings are made from the demeanour of the patient during administation, the patients report of symptoms, information from professionals known to the patient and from case notes.

The scale is widely used in research and was chosen for its relative ease of administration, the lack of dependence on the interview alone and as it required a limited amount of questioning of the patient in a study already employing several other measures.

For the purposes of this study negative symptoms were grouped together to form a total score. Other symptoms were analysed individually and also totalled to form an overall score for psychopathology. As discussed earlier paranoid delusions have been linked to self-esteem (Bentall et al, 1993), therefore an additional measure of the paranoid content of delusions was also assessed. This was not incorporated in the overall psychopathology score.

Part 2. Assessment techniques were used to elicit patients core beliefs about self and their illness and to measure dysfunctional attitudes held by the patient. The measures employed were two standardised scales and a qualitative measure of patients negative and positive self statements. Copies of the two standardised measures are in Appendix 6.

***Beliefs about Illness*:** Personal Beliefs About Illness Questionnaire (PBIQ), Birchwood et al (1993)

This instrument, designed for use with mentally ill patients, was chosen as it provides qualitative and quantitave information on the patients perceived control over their illness, their illness attribution and also shows the degree to which social and scientific beliefs about mental illness are accepted by them as a statement about themselves. The

questionnaire has five scales: *Belief in self as illness*: this scale assesses the extent to which patients attribute the cause of their illness to their personality or psyche. *Control over illness*: this is a measure of the patients perceived control over their illness. *Stigma*: this scale assesses whether patients believe that their illness is a social judgement upon them. *Social containment*: this is a measure of the patients belief that the mentally ill should be socially segregated and controlled. *Expectations*: this assesses whether the patient feels the illness effects their capacity for independence. Each scale consists of between two to four statements which are rated on a four point scale of stongly disagree to strongly agree.

***Dysfunctional Attitudes*:** Dysfunctional Attitude Scale (DAS)-24, Power et al (1994)-(Short Form of DAS scale by Weissman & Beck (1978)

This scale was used to assess dysfunctional attitudes held by the patients. It measures a global level of dysfunctional attitudes and content specific dysfunctionality in relation to three subscales of Achievement, Dependency and Self-control. The scale was developed from, and has a close relationship with, the original 40-item and 100-item versions of the DAS (Weissman & Beck, 1978) and has been demonstrated to have good reliability and validity (Power et al, 1994). The scale comprises 24 items, 8 in each subscale, and offers a 7 point response of totally agree to totally disagree. The maximum total score is 168, and maximum subscale score is 56. High scores indicate extreme attitudes. Norms are available for depressed and GP practice populations.

Positive and Negative Self Statements

As the study's main method of assessing patients beliefs about themselves was by standardised questionnaire, it was considered useful to elicit patients self produced cognitions about self. A measure of negative and positive self statements was elicited during semi-structured questioning. Patients were asked to describe themselves as a person, to say what they liked and disliked about themself and to say what they felt they were good or not so good at doing. The patients response was recorded and rated for the number of positive and negative statements. As some patients are more talkative than others the proportion of negative and positive statements of the total number of statements were calculated.

Procedure

Patients were invited to attend a single research interview which was aimed to last around 90 minutes. It was anticipated that for some patients, due to cognitive deficits and negative symptoms, this may be too long and alternative arrangements were offered. In addition to a standard break for tea/coffee, patients were advised at the beginning of the interview that they could stop or have a break at any time. If, during the interview the author felt that the patient was becoming tired, distressed or losing concentration they would offer a break or a further appointment to conclude the interview.

The Research Interview

The research interview began with a period of rapport building, which included the author going over the study information and inviting any questions from the patient.

When the author felt the patient fully understood their part in the study and were happy to partake they were asked to sign the consent form (Appendix 7).

For the next 20 minutes of the interview socio-demographic and clinical details were gathered and entered on the Patient Details Form. This was followed by administration of the symptomatology scale. For all patients the author administered the Life Events Inventory, and the semi-structured interview to elicit self statements, but the completion of the other measures varied according to the wishes of the patients. Some patients reported difficulty with self complete questionnaires in which case they were administered via questioning by the author. Others required some assistance, while some insisted on completing all questionnaires themselves. In every case full instructions for each of the measures was given verbally by the author. During each interview there was a break for tea/coffee and biscuits.

For most patients the interview was completed in one session, however, 10 patients required a further appointment. Interview times varied from 45 minutes to 2 hours. The majority of the patients showed no signs of distress about the interview content, but as many of the measures were eliciting unhappy information the author tried to ensure that patients did not leave the interview feeling distressed about any issues which had arisen. When three patients became quite tearful when discussing certain issues the author used clinical judgement and skills to assist the patient and ensured that they were happy to continue with the interview.

Contact with Named Significant Other

During the research interview, on completion of the LEE scale patients were asked for permission to contact the individual they had named. The confidentiality of both the patient and their named significant other was reiterated. If patients were unhappy about involving the person they had named no attempt was made to persuade them otherwise.

Where the patients permission was obtained those individuals named were contacted by letter giving brief details about the research and advising them that they had been named as a significant other in the patients life. They were also advised that there was no obligation for them to complete the questionnaire and that the patient would not be informed of their decision. Confidentiality of both themselves and the patient was stated clearly in the letter (Appendix 3). A stamped addressed envelope was included for return of the questionnaire.

Information from Clinical Notes & Other Professionals

Confirmation of clinical information and current symptomatology was confirmed from psychiatric case notes and where appropriate from NHS mental health professionals working with the patient. Identifying details and clinical history of the patients were recorded on the Patient Details Form only. Identity codes were attached to the corresponding questionnaires and other measures. Patient details forms were treated in the same manner as patient clinical case notes and no identifying details were entered on to any computer files.

Analysis

Assessment measures were scored and entered onto SPSS (Windows Version 6.1) statistical computer package, for analysis of data. This provided descriptive analysis of each of the variables being investigated, including exploration of the distribution of scores, and also analysis of associations between the variables using correlational and multiple regression techniques. Separate variance t-tests comparing data from another source were calculated manually.

IV. Results

The results section is presented in two parts, corresponding with the study objectives.

Part 1

This section will describe the demographic characteristics of the subjects, give descriptive accounts of the main variables of concern to part 1 of the study, then show the results of correlational and regression analysis of these variables.

Socio-demographic and clinical details (Table 2)

Clinical: All subjects were reported by their consultant psychiatrist to have a diagnosis of schizophrenia. The subtype of schizophrenia was not available as it was beyond the limits of the study to complete diagnostic schedules, however, current mental state was assessed and will be presented below. The mean length of time since onset of the illness was 12.68 years, min 1 year, max 32 years. The mean number of admissions to hospital was 6.35, min 1, max 36. All subjects were on maintenance doses of anti-psychotic medication.

Age and Gender and Ethnicity: The age range of subjects was from 21 to 57 years with a mean age of 38.27 years. A majority of 73.5% of the patients were male. There were no patients from minority ethnic groups.

Marital status: The majority of subjects were single (85.3%) with only 3 patients married or living with a partner.

Residential status: A majority of 58.8% of patients lived in the community. The remainder were temporarily in health care rehabilitation units 3 out of 4 of which were based in the community. Four patients were resident in a rehabilitation unit within

hospital grounds. Several patients, 26.5%, lived independently in their own home, one patient in their parental home, and 29.4% were in supported accommodation provided by local housing associations.

Table 2. Socio-Demographic and Clinical Data (n=34)

	n	%	mean	Std. Dev.
Duration of illness	34	n/a	12.45	9.59
Number of admissions	34	n/a	6.35	7.55
Age	34	n/a	38.27	10.99
Sex Male	25	73.5		
Female	9	26.5		
Marital Status				
Single	29	85.3		
With partner	3	8.8		
Sep/div.	1	2.9		
Widow	1	2.9		
Residence				
Own home	9	26.5		
Parental home	1	2.9		
Supported accommodation	10	29.4		
Rehabilitation unit	14	41.2		
Occupational Role				
Paid employment	1	2.9		
Voluntary work	3	8.8		
Sheltered employment	1	2.9		
Homemakers	0	0		
None	29	85.3		
Current Services				
Psychiatrist	34	100		
CPN	10	29.4		
Clinical Psychologist	2	5.8		
Day Services				
Health Care	8	22.4		
Social Care	5	14.5		
Psychiatrist only	4	11.8		

Occupational role: The majority of subjects had no occupational role (85.3%), but 3 patients did voluntary work, one was involved in industrial therapy/sheltered employment. Only one patient had paid employment.

Current mental health services: All subjects were in regular contact with their psychiatrist. 29.4% had regular visits by a Community Psychiatric Nurse (CPN). 22.4% attended health care day services and 14.6% social care day services. 2 patients (5.8%) were attending clinical psychology out-patient services. 4 patients (11.8%) had contact with no other service other than out-patient psychiatric services. Similarly, 9 patients who were in rehabilitation units had contact with no other services.

Self-Esteem

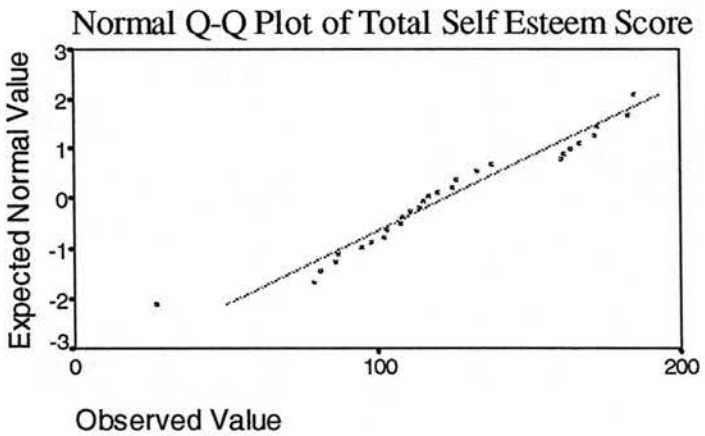
The self-esteem questionnaire was successfully completed by all 34 subjects. The mean Total score was 122 with a minimum score of 27, maximum of 185 and standard deviation of 34.2.

Table 3. Total and Factorial Self-Esteem Scores.

	mean	*standard deviation*	*min*	*max*
Total score	122	34.2	27	185
Factor 1: ***Attractiveness/approval by others***	4.47	1.47	0	7.00
Factor 2: ***Contentment, worthiness, significance***	3.30	1.69	0.67	6.67
Factor 3: ***Autonomous self regard***	4.50	1.37	1.80	7.00
Factor 4: ***Competence, self efficacy***	4.54	1.42	1.00	7.00
Factor 5: ***Value of existence***	4.14	1.38	0.33	7.00

The majority of subjects, 76.5% (n=27), had self-esteem scores below the mean for normal populations as reported by Robson (1989). 21% of patients had scores above the mean for the normal population, 18% had scores within 1 standard deviation of the mean for 'norms', and 3% were within 1.5 standard deviations. Scores for the factorial components of self-esteem are presented in Table 3. From analysis of the distribution of scores (figure 1.) the lowest score of 27 was considered to be an outlier and therefore this case was excluded from correlational and regression analysis.

Figure 1: Normal Q-Q Plot of Total Self-Esteem Score



Expressed Emotion

Descriptive results for expressed emotion (EE) are presented by showing separate summary statistics for both the patient and relatives version of the LEE scale and by test of association between the two scales.

LEE Scale - Patients Version

The Level of Expressed emotion (LEE) questionnaire was completed by all but one subject. The subject who did not complete the questionnaire was very isolated in the community with no contact with family members or friends and could not name any

person who he considered to be influential in his life. Thus 33 questionnaires measuring perceived EE from a named individual were completed.

Figure 2: Relationship to Patients of Individuals Named as Most Influential Person on LEE Scale.

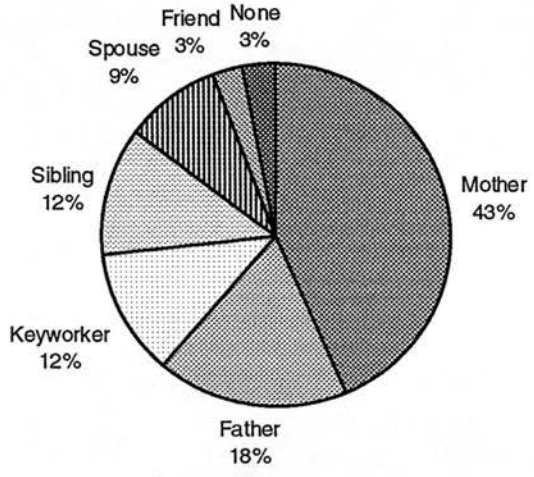


Figure 2. shows the patient's relationships with the named individuals chosen. A majority of 44% patients named their mother as the person most influential in their life. Fathers were chosen by 18%. Keyworkers, within supported accommodation and rehabilitation units, were nominated by 12% (4) of patients none of whom were in contact with any family members or friends. Three subjects chose siblings (2 sister, 1 brother), a further 3 named their spouse (2 husbands, 1 wife) and 1 patient who was not in contact with any relatives, named a close friend.

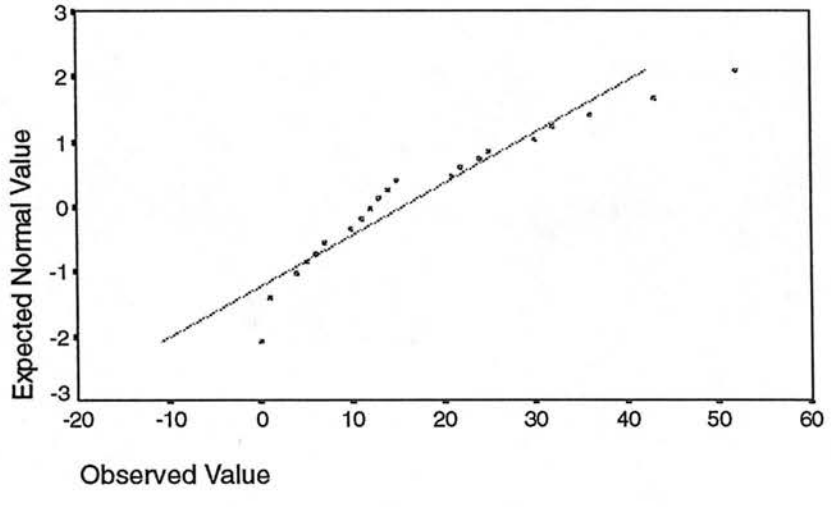
The questionnaire was scored for levels of perceived expressed emotion (EE). The mean total score for perceived EE was 15.78, Std dev 12.75, Minimum 0, Maximum 52. *Intrusiveness* had the highest mean of all the subscales, 5.24, and *attitude toward patient* had the lowest mean, 2.52 (see, Table 4).

Table 4. Perceived Expressed Emotion Total and Factorial Scores (n=33)

	mean	*standard deviation*	*min*	*max*
Expressed Emotion	15.60	12.72	0	52
Factor 1: *Intrusiveness*	5.24	3.94	0	14
Factor 2: *Emotional responsiveness*	3.85	3.59	0	13
Factor 3: *Attitude toward subject*	2.52	3.05	0	12
Factor 4: *Tolerance/expectations*	3.97	4.20	0	15

The distribution of scores for perceived EE is normal, but the patient with the outlying score for self-esteem is similarly on the extreme for perceived EE, with the highest score of 52 (see Figure 2). This case was removed for correlational and regression analysis.

Figure 3: Normal Q-Q Plot of Perceived Expressed Emotion



LEE Scale-Relatives Version

Of 23 scales issued (see methodology), 14 (61%) were returned completed. The mean score for EE was 6.64, standard deviation 5.52, minimum 1 and maximum, 19. Mean

scores for the factorial components were: *Intrusiveness* 3.07, *Emotional Responsiveness* 1.92, *Attitude Toward Illness* .43, *Tolerance/Expectations* 1.07.

As several of the patients named individuals did not complete LEE scales, data on perceived EE of the associated patients are presented.

Categories of high and low expressed emotion were established to aid data analysis. Following Cole & Kazarian, (1993) it was decided to use the median score. For this purpose the outlying score was removed resulting in a mean score of 14.47, and median of 12. This median is slightly higher that used by Cole & Kazarian (9) thereby reducing the chance of incorrectly categorising high perceived EE.

Crosstabulations showed that of those patients who refused to give permission to contact named individuals 80% (n = 4) had high perceived EE scores, compared to 45.5% of those who did give permission (ns). 62.5% of patients whose named individuals did not return the LEE scale, had high perceived EE scores, compared to 35.7% of those where the scales were returned (ns). Of those named individuals who returned the scale, 85.7% had low EE scores for themselves.

Associations between Results of Patient and Relative LEE Scale

Pearson correlation coefficients show significant positive correlations between the total perceived EE score for patients and the EE scores of their named significant others ($r = .85$, $p < .001$) and between both groups scores on the *intrusiveness* scale ($r = .9$, $p < .001$). There was a trend towards significance for *emotional responsiveness* ($r = .5$, $p = .07$), but not for the *attitude towards illness* scale ($r = .22$, $p = .45$).

Social Support

The Significant Others Scale was completed by 33 subjects. One patient found the scale too difficult to understand. This measures the number of significant relationships in the subjects life and the qualitative aspects of emotional and practical support as perceived by subjects.

Significant others named by subjects were people with whom they were in regular contact and who they considered to be important in their lives. Subjects could name up to seven people. The mean number of significant relationships was 5, minimum 3 and maximum 7. Twenty four per cent of subjects had the minimum of 3 relationships and 44% the maximum of 7. Mental health professionals were named as significant others by 55.9% of the sample.

In order to estimate the primary social network of patients the number of mental health professionals was removed from the total number of significant others. This resulted in a figure of only 17.6% of patients having 7 significant others who were not professionals. The mean number of non-professional significant others was 4.47 (s.d. 1.88).

Perceived emotional and practical support

The data suggest that many patients were dissatisfied with levels of emotional and practical support. Only 23.5% of patients did not show any discrepancy between actual and ideal emotional support, and still less, 20.6%, showed no discrepancy for actual and ideal practical support. Table 5. presents summary data for these variables.

Table 5. Perceived Actual and Ideal Social Support (n=33)

	Mean	*Standard Deviation*	*min.*	*max.*
Mean Emotional Support				
Actual	5.08	1.51	1.50	7.00
Ideal	5.75	1.31	1.30	7.00
Mean Practical Support				
Actual	4.25	1.17	2.00	7.00
Ideal	5.17	1.31	2.75	7.00
Discrepancy				
Emotional Support	0.77	1.03	0	3.00
Practical Support	1.03	.79	0	2.50

Life events

The measure of life events showed that the majority of subjects (80%) experienced at least one life event over the previous 6 months. However, the mean number of events was relatively low at 2, (std dev 2, min 0, max 8). Although not all events were considered to be stressful, the mean for stressful events was just slightly less at 1.7 (Std dev 1.7, min 0, max 7).

Current Symptomatology

The assessment of patients current mental state or symptomatology found that the majority of patients in this sample had mild levels of both positive and negative symptoms. Similarly, scores for depression and anxiety were at or below the moderate level (see Table 6.). Moderate levels of depression were scored in 11.8% of patients, and 44.1% had mild levels. The mean score for delusions was 2.06 which is slightly above the moderate level. Paranoid delusions were less evident with a mean score of 1.17. The mean score for psychopathology was 5.32 from a possible score of 16.

Table 6. Scores on the Manchester Scale of Symptomatology (n=34)

	mean	*standard deviation*	*min*	*max*
depression	.68	.68	0	2
anxiety	1.20	.88	0	2
hallucinations	1.38	1.72	0	4
delusions	2.06	1.43	0	4
paranoid delusions	1.17	1.42	0	4
psychopathology	5.32	2.98	0	12
negative symptoms	2.35	2.45	0	8

Correlational and Regression Analysis of the Study Variables, Part 1.

To test the study hypotheses, associations between self-esteem and the independent variables under investigation were established by calculating correlation coefficients. Although many relationships are predicted two tailed significance levels will be used in the main, as predictions were not made for most of the subscales of the measures. In addition, associations between variables to be included in linear multiple regression analysis were also established in this way. As this entailed a large number of statistical tests, for unpredicted findings the significance level was set at .01 rather than the traditional .05 to reduce the likelihood of chance findings. For the purposes of regression analysis the significance level for entry was set at .05 therefore this section will display significance levels up to .05.

As discussed above the patient who had extreme scores for both perceived expressed emotion and self-esteem has been removed from correlational analysis, therefore data for 33 patients are included in the analysis. One patient did not complete the LEE scale, therefore analysis including this variable shows data for 32 patients.

Self-Esteem and Perceived Expressed Emotion (Table 7.)

The results of correlational analysis show a significant negative correlation, ($r = -.51$, $p = .003$) between the total self-esteem score and the total perceived high EE score. High levels of perceived EE related to low levels of self-esteem. On examination of the subscales of the LEE, the subscale of *emotional responsiveness* shows the strongest correlation with total self-esteem ($r = -.66$, $p < .001$). The only subscale which did not have a significant correlation with self-esteem was *intrusiveness*.

Table 7. Pearson Correlation Coefficients for Self-Esteem and Perceived Expressed Emotion (n=32)

	High EE	Intrusiveness	Emotional Responsiveness	Attitude toward patient	Tolerance / expectations
Total Self-esteem	-.51, **	-.14	-.66 ***	-.41 *	-.53 **
Factor 1: *Attractiveness /approval by others*	-.47 **	-.09	-.61 ***	-.40 *	-.50 **
Factor 2: *Contentment, worthiness, significance*	-.38 *	-.2	-.55 ***	-.25	-.28
Factor 3: *Autonomous self regard*	-.46 **	-.05	-.53 **	-.50 **	-.61***
Factor 4: *Competence, self efficacy*	-.33	-.03	-.37 *	-.28	-.44 **
Factor 5: *Value of existence*	-.40 *	-.20	-.55***	-.31	-.31

* p<.05 , ** p<.01, *** p<.001. 2-tailed significance

None of the subscales of the Self-esteem questionnaire show greater correlations than total self-esteem, with the total level of perceived EE. Factor 3, *autonomous self regard*,

does show greater correlations with two of the perceived EE subscales - *attitude towards patient* ($r = -.5$, $p = .004$) and *tolerance/expectations* ($r = -.62$, $p < .001$).

Self-Esteem and Social Support

Correlation coefficients were calculated for the various aspects of the significant others scale and self-esteem. A significant negative correlation was found between total self-esteem and the discrepancy for actual and ideal emotional support ($r = .44$, $p = .01$). Higher discrepancy was associated with lower self-esteem. In addition there were significant negative correlations between discrepancy for emotional support and self-esteem-Factor 2 ($r = -.41$, $p = .02$) and also with self-esteem-Factor 4 ($r = -.44$, $p = .01$). There was not a significant correlation between self-esteem and ideal emotional support or with any other measure in the Significant Others Scale, including the number of significant others named by the patient.

Self-Esteem and Life Events

There were no significant correlations between self-esteem and life events reported by patients. This was true for the total number of life events and also when stressful and unstressful events were examined separately.

Self-Esteem and Clinical Measures (Table 8.)

The relationship between self-esteem and symptomatology was examined using correlational analysis. The results show a negative correlation for depression and total self-esteem score ($r = -.38$, $p = .03$). The importance of depression is also reflected in the significant relationships found with two of the self-esteem factor scores- Factor 3:

Autonomous self regard (r = -.49, p = .004) and Factor 4: Competence/self efficacy (r = -.55, p = .001).

Table 8. Pearson Correlation Coefficients for Symptoms and Self-Esteem

(n = 32)

	self-esteem	*Factor 1:* Attractiveness /approval by others	Factor 2: *Contentment, worthiness, significance*	Factor 3: *Autonomous self regard*	Factor 4 *Competence, self efficacy*	Factor 5: *Value of existence*
depression	-.38*	-.29	-.12	-.49**	-.55***	-.15
anxiety	-.43**	-.39*	-.48**	-.41*	-.23	-.17
hallucinations	.12	.02	.13	.11	-.08	.21
delusions	-.28	-.28	-.13	-.19	-.19	-.29
paranoid delusions	-.30	-.13	-.26	-.12	-.33	-.27
psychopathology	-.29	-.31	-.16	-.26	-.34	-.11
negative symptoms	.07	.17	.06	.26	.13	.02

* p<.05 , ** p<.01, *** p<.001. 2-tailed significance

The data was also examined for correlations between the duration of the illness and the number of hospital admissions. There were no significant associations between these variables and self-esteem.

Perceived Expressed Emotion and Social Support

Pearson correlation coefficients were calculated for the LEE scale and the Significant Others Scale. There was no relationship between any of the aspects of social support measured and the total score for perceived EE, however, there was a significant relationship between the EE subscale of Emotional Responsiveness and the discrepancy of actual and ideal emotional support (r = .41, p = .02). There was also an association

between ideal practical support and the EE subscale of Tolerance/Expectations ($r = .36$, $p = .04$).

Perceived Expressed Emotion and Life Events

The total score for perceived EE and the EE subscales were examined for associations with the total number of life events, and with the number of stressful and unstressful events. (Appendix 9). The only aspect of perceived EE which showed a relationship with life events was the subscale of Intrusiveness which had a significant correlation with stressful life events ($r = .53$, $p = .002$) and with total number of life events ($r = .6$, $p < .001$).

Social Support and Life Events

The findings from the Significant Others Scale show that levels of actual practical support had a significant relationship with stressful life events ($r = .48$, $p = .006$) and with total number of life events ($r = .42$, $p = .02$). Other aspects of social support did not show relationships with life events.

Linear Multiple Regressional Analysis

Regression analysis was carried out to establish the degree of variance in self-esteem which could be predicted by the independent variables hypothesised to be of importance, i.e. perceived expressed emotion, social support and life events. A correlation matrix of these variables is presented in Table 9.

Table 9. Correlation of Variables Entered in Self-Esteem Regression Equation

	EE	*ER*	*D-ES*	*Depression*	*Life Events*
Self-esteem	-.51**	-.66**	-.44**	-.38*	.01
	(32)	(32)	(32)	(33)	(33)
Expressed emotion(EE)	-	.9 **	.25	.02	.22
		(32)	(31)	(32)	(32)
Emotional Responsiveness (ER)	-	-	.41 **	.25	.15
			(31)	(32)	(32)
Discrepancy-	-	-	-	.29*	-.08
Emotional Support (D-ES)				(32)	(32)
Depression	-	-	-	-	-.07
					(33)

* p<.05 , ** p<.01 - 1-tailed significance

Although the correlational analysis above does not show a significant association between self-esteem and life events, this variable was entered into the equation from a theoretical perspective. In addition the variable 'depression' was included in the equation as it is of relevance theoretically and was significantly associated with the other variables in the equation.

A standard multiple regression was performed between total self-esteem score as the dependant variable and total perceived EE score, discrepancy-emotional support, stressful life events and depression (Table 10).

Together these four variables explain 39% of the variance in total self-esteem scores. The only variable to make a significant independent contribution to the prediction of self-esteem was perceived expressed emotion. The semipartial (sp) r^2 between perceived EE and self-esteem after controlling for discrepancy of emotional support, depression and life events was .14, indicating that this variable accounted for a unique

14% of the overall variance. The semi partial (sp) r^2 for discrepancy of emotional support was .7, indicating that this accounted for 7% of the variance.

Table 10. Standard Multiple Regression of Psychosocial Factors and Depression on Self-Esteem (n= 31)

Variables	*Beta*	*T*	*sp-r²*	*P Value*
Expressed Emotion	**-.43**	**-2.48**	**.14**	**.02**
Discrepancy emotional Support	**-.29**	**-1.73**	**.07**	**.09**
Depression	**-.11**	**-.63**	**.01**	**.54**
Stressful Life Events	**.09**	**.56**	**.01**	**.58**

Multiple r = .62, r^2 = .39, F = 4.14, df = 4, 26 Sig F = .01

As the EE subscale of Emotional Responsiveness had a greater correlation with self-esteem than the total perceived EE score a further standard multiple regression was performed replacing total perceived EE with Emotional Responsiveness. (Table 11.)

Table 11. Standard Multiple Regression of Psychosocial Factors and Depression on Self-Esteem (n= 31)

Variables	*Beta*	*T*	*sp-R²*	*P Value*
Emotional Responsiveness	**-.60**	**-3.89**	**.27**	**.0006**
Discrepancy emotional Support	**-.134**	**-.864**	**.03**	**.395**
Depression	**-.155**	**-1.071**	**.02**	**.294**
Stressful Life Events	**.095**	**.68**	**.01**	**.502**

Multiple r = .72, r^2 = .52, F = 7.1, df = 4, 26 Sig F = .0005

This made a significant difference to the regression equation showing that these four variables together explained 52% of the variance in total self-esteem. Emotional responsiveness made a significant unique contribution of 27% (sp-r^2 = .27, p = .006).

The other variables made much smaller non-significant unique contributions, Discrepancy- Emotional Support- sp-r^2 = .03, depression sp-r^2 = .02, stressful life events- sp-r^2 = .01.

Results: Part 2.

The results in this section describe the patients beliefs about themselves, their illness, and more general beliefs about life. In addition to descriptive results there will be correlational and regression analysis to illustrate the relationship between these beliefs and self-esteem.

Beliefs about Illness

The Personal beliefs about illness questionnaire (PBIQ) was completed by all but two of the 34 patients. The two patients who did not complete the questionnaire refused to do so as they did not accept that they had an illness. They were both aware of their diagnosis of schizophrenia and were compliant with their medical treatment but nevertheless did not accept that they were mentally ill. Descriptive results are therefore presented for 32 patients.

Examining some of the individual statements on the PBIQ shows that many of the sample have maladaptive beliefs about their illness:

In relation to control over illness:

- 47% agreed with 'My illness frightens me'
- 41% agreed with 'I find it difficult to cope with my symptoms'
- 53% agreed with ' If I am going to relapse there is nothing I can do about it'
- 31% agreed with 'I am powerless to influence or control my illness'

With regard to illness attribution:

- 56% of patients disagreed with 'I am fundamentally normal, my illness is like any other'
- 31% agreed with 'There is something about my personality that causes my illness'

Other findings were that 34% of patients thought they were capable of very little as a result of their illness; 47% were embarrassed by their illness, 34% thought that their illness was a judgement on them and 22% felt that people like them should be segregated from the rest of society.

Mean Scores for PBIQ Scales

With a possible maximum of 16, perceived control over illness had the highest mean score at 9.35 (high score reflects poor control) standard deviation of 2.75, minimum 4 and maximum 14. The mean for self as illness was 8.18, Standard deviation 2.11, minimum 4 and maximum 11. (see Table 12)

Table 12. Scores for the PBIQ (n = 32)

	Mean	*Standard Deviation*	*min*	*max*
Control over illness	9.35	2.75	4	14
Self as illness	8.18	2.11	4	11
Social Containment	4.31	1.42	1	7
Stigma	7.03	2.14	3	12
Expectations	6.94	2.35	3	12

Beliefs about illness and self-esteem

Spearman correlation coefficients were calculated for self-esteem and the five scales of the PBIQ. As in earlier correlational analysis the data for the patient with the outlying score for self-esteem was removed therefore data is presented for 31 patients.

Significant relationships were found between self-esteem and *beliefs in self as illness* but not for *control over illness* or any other of the PBIQ scales. In addition there was no significant association with the single item of *'I am powerless to influence or control my illness'* and self-esteem (r = -.21, ns). Results are presented in Table 13. for both *self as illness* and *control over illness* as these were the two main factors under investigation.

Table 13. Pearson Correlation Coefficients for Self-Esteem and PBIQ (n=31)

	self-esteem	*Factor 1:* Attractiveness /approval by others	Factor 2: *Contentment, worthiness, significance*	Factor 3: *Autonomous self regard*	Factor 4 *Competence, self efficacy*	Factor 5: *Value of existence*
Self as illness	-.55 ***	-.44 *	-.29	-.57 ***	-.61 ***	-.34
Control over illness	-.27	-.11	-.15	-.19	-.33	-.22

* p<.05 , ** p<.01, ***p<.001. 2-tailed significance

As depression has been found to be related to *self as illness* (Birchwood et al 1993) a correlation coefficient was calculated for these two variables. There was not a significant relationship between these variables (r = .29, p = .12), but it was thought appropriate to include depression and control over illness in a multiple regression analysis following the theoretical perspective.

Table 14. Standard Multiple Regression of Beliefs about Illness and Depression on Self-Esteem (n= 31)

Variables	*Beta*	*T*	*sp-R^2*	*P Value*
Self as illness	**-.453**	**-2.546**	**.161**	**.016**
Control over illness	**-.134**	**-.802**	**.015**	**.429**
Depression	**-.151**	**-.889**	**.019**	**.381**

Multiple r = .58, r^2 = .33, F = 4.45, df = 3, 27 Sig F = .01

The results show that *self as illness* is a better predictor of self-esteem than *depression* or *control over illness* in this group of subjects. Together the 3 variables explain 33% of the variance in total self-esteem. The only variable to make a significant contribution to the prediction of self-esteem was self as illness which had a semi partial r^2 of .161, indicating that this variable accounted for a unique 16.1% of the overall variance. Control over illness (sp-r^2 = .019) and depression (sp-r^2 = .015) did not make significant contributions to the overall variance.

Dysfunctional Attitudes

The Dysfunctional Attitudes Scale (DAS) was completed by 30 patients. The scale was not completed by 4 patients, all with marked psychomotor retardation, who found difficulty processing the content of the items.

Table 15. shows the results of the study sample together with norms obtained in a previous study by Power et al, (1994) for depressed and GP practise samples for comparison.

Table 15. Comparison of mean DAS-24 Scores for GP, Depressed and Schizophrenia Patients

DAS-24 Scale Mean (SD)	GP Sample n = 142	Depressed Sample n = 152	Study Sample n = 30 Mean (SD)	Depressed and Study Samples t-test, sig.
Achievement	21.67 (9.38)	25.74 (11.01)	32.33 (10.33)	3.06, p<.005
Dependency	27.48 (9.61)	30.41 (8.82)	30.03 (9.29)	0.21, ns
Self-Control	26.57 (7.91)	29.43 (8.32)	36.07 (8.15)	5.01, p <.005
Total	75.71 (20.76)	85.59 (22.81)	98.43 (21.33)	3.74, p < .005

The mean total score for the DAS-24 was 98.43, standard deviation of 21.33. This is higher than both the depressed and GP practise samples reported by Power et al 1994, which had mean scores of 85.59 and 75.71 respectively. Separate variance t-tests (independent samples) were calculated using the data available from the published paper, finding that there was a significant difference between the current study sample and the depressed sample for the total DAS-24 score ($t = 3.43$, $p < .005$), the achievement score ($t = .306$, $p < .005$) and most noticeably in the self-control scale, ($t = .51$, $p < .005$). (see Table 15)

Dysfunctional Attitudes and Self-Esteem

Pearson correlation coefficients were calculated to show associations between scores on the dysfunctional attitude scale and the self-esteem scale.

Table 16. Pearson Correlation Coefficients for DAS-24 and Self-Esteem (n = 30)

	self-esteem	Factor 1: *Attractiveness /approval by others*	Factor 2: *Contentment, worthiness, significance*	Factor 3: *Autonomous self regard*	Factor 4 *Competence self efficacy*	Factor 5: *Value of existence*
DAS	-.52**	-.35	-.56***	-.18	-.08	-.56**
Achievement	-.54**	-.29	-.64***	-.18	-.06	-.65***
Dependency	-.67***	-.59***	-.52**	-.53**	-.31	-.52**
Self Control	.08	.12	-.06	.35	.20	-.04

* p<.05 , ** p<.01, *** p< .001 - 2-tailed significance

There was a significant association between the total DAS score and total self-esteem score in the direction of high dysfunctional assumptions with low self-esteem ($r = -.52$, $p = .004$). This was also true of the DAS subscales of Achievement ($r = -.54$, $p = .002$) and Dependency ($r = -.67$, $p < .001$). This was not the case with the subscale of Self-Control where the correlation coefficient was very low ($r = .08$).

Dysfunctional Attitudes and Symptomatology

Correlational analysis investigated associations between DAS scores, and symptomatology. There were no significant associations found with any of the symptomatology scores. There was a relationship between Delusions and the Achievement subscale of DAS ($r = -.43$, $p = .02$) but this did not reach the significance level stipulated for this study.

Dysfunctional Attitudes and Psychosocial Factors

Correlational analysis did not reveal any significant associations between dysfunctional attitudes and expressed emotion, social support or life events.

Self Statements

The proportion of negative and positive self statements made by patients during semi-structured questioning about self beliefs was calculated for all patients in the sample. The mean proportion of negative self statements for the sample was 43.56%, with a standard deviation of 28.43, a minimum of 0 and maximum of 100. A majority of 61.8% of patients made more positive than negative self statements.

Correlations between self statements and self-esteem

Pearson correlation coefficients were calculated for the association between self-esteem and the proportion of negative self statements for all 34 patients. There were significant negative correlations with total self-esteem ($r = -.46$, $p = .007$) and the following components of self-esteem: Factor 2: $r = -.44$, $p = .01$; Factor 3: $r = -.34$, $p = .05$; and Factor 5: $r = -.36$, $p = .04$. (2-tailed significance).

Correlations between self statements and perceived expressed emotion

Pearson correlation coefficients were also calculated for the association between the proportion of negative self statements and perceived expressed emotion. There was a significant positive correlation for the perceived EE subscale of emotional responsiveness ($r = .35$, $p = .05$), but not for total perceived EE or any of the other subscales.

Summary of Results

With regard to the study hypotheses the results were as follows:

- High perceived expressed emotion was significantly associated with low self esteem
- The perceived EE subscale of emotional responsiveness had the strongest correlation.
- High perceived EE, in particular emotional responsiveness was more predictive of low self-esteem than perceived social support or recent life events.
- Low perceived levels of social support were not significantly related to low self-esteem.
- Low levels of ideal support were not related to low levels of self-esteem
- Greater discrepancy between actual and ideal emotional support was significantly associated with low self-esteem
- Perceived lack of control over illness was not significantly related to low of self-esteem
- Illness attribution relating to beliefs of the self as illness was significantly be related to low self-esteem
- Illness attribution was a stronger predictor of self-esteem than perceived control.
- There was a marked prevalence of dysfunctional assumptions which were significantly related to self esteem.
- Patients negative self descriptions were related to low self-esteem

The majority of the sample had low levels of self-esteem, 75% lower than the average score for the normal population. Patients had small primary social networks, and 15% had no contact with family and friends, relying on mental health professionals for social support. A majority of patients had a discrepancy in their actual and ideal social support. Life events were not common with a mean of 2 for the sample over the previous 6 months. The sample on the whole did not have high levels of psychiatric symptomatology, but did have higher scores for psychotic rather than neurotic symptoms. Many patients held maladaptive beliefs about their illness. Patients had high levels of dysfunctional attitudes. A majority of patients made more positive than negative self statements.

V. DISCUSSION

Discussion of the results of the study will firstly describe the findings in relation to the existing research presented in the literature review. Following this the limitations of the study will be discussed together with recommendations for improvements on the methodology. Clinical implications of the study findings will be presented and suggestions for future research in this area.

Psychosocial Factors and Self Esteem

The first group of study hypotheses were made about the relationship between self-esteem and psychosocial factors which are important in the course of schizophrenic illness. Before discussing the specific hypotheses it is relevant at this point to raise two issues which influence interpretation of the findings. Firstly the distribution of self-esteem in the study sample and secondly the theoretical validity of perceived expressed emotion.

Self-Esteem in the Study Sample

As in previous studies of self-esteem the current sample of schizophrenia patients had levels of self-esteem lower than the average for the normal population (Robson, 1989). Beyond certain high levels of self-esteem the relationship with personal adjustment can be considered curvilinear (Block and Thomas, 1955), therefore it was important to note that for this sample patients with scores above the mean for the normal population (21%) did not have extremely high self-esteem. The majority of these patients had scores within 1 standard deviation of average for 'norms', the remaining few within 1.5

standard deviations. Thus, the sample did not reach abnormally high levels of self-esteem and can be considered to have a linear relationship with adjustment.

The Theoretical validity of Perceived Expressed Emotion

Before discussing findings in relation to the existing literature it is necessary to address the issue that the LEE scale is a measure of perceived EE rather than the observed EE ratings used in most research. The high correlation between the patients and relatives version of the LEE scale suggest that it has been a valid measure of EE. In addition there are several findings from existing research which confirm that perceived EE can be incorporated into the existing theory on EE and these are discussed later in the section on Methodological Issues.

The Relationship Between Self-Esteem and Expressed Emotion

The relationship between self-esteem and EE was confirmed, as hypothesised, to be a significant association, where high levels of perceived EE were related to low levels of self-esteem. This was particularly so for the LEE subscale of *emotional responsiveness*. In high EE relatives this correlate of EE was described by Vaughn and Leff (1981) as a response to the patient's illness with anger, acute distress or both, together with an inability to cope with crises or to exert a calming influence on the patient when distressed. It could be supposed that this may lead to the patient feeling responsible for the parents distress and to self blame.

The study hypothesis that hostility and criticism would be the aspects of EE to have the greatest association with self-esteem has not been established by the study. Although

the LEE scale does not have a particular subscale for criticism and/or hostility, these are implicit in all of the subscales and are particular components of *attitude toward illness* and *tolerance/expectations* (Vaughn and Leff, 1981). Both these subscales had a significant negative correlation with the total self-esteem score and in particular were highly correlated with the self-esteem component of *autonomous self regard.* This component of self-esteem reflects the individual's ability to hold a positive view of themselves regardless of the opinion of others.

It is not surprising to find that this aspect of self-esteem would be low in the presence of others with behavioural and attitudinal patterns described by Vaughn and Leff (1981) as 'doubt that the patient is genuinely ill' and 'frequent blame of the patient who is held responsible for the condition'. In addition, individuals high on these EE correlates will be intolerant of symptom behaviours and will put pressure on patients to improve their functioning and to be normal. These descriptions of the LEE subscales are similar to findings made by Barrowclough et al (1994) in their study on attributions in family members, where those high on criticism attributed the cause of patient's difficulties as internal to patients and those high on hostility saw problems as controllable by and personal to the patient. Thus it appears that criticism and hostility are major factors in two of the subscales which correlate with low self-esteem. The finding that perceived EE was best able of the psychosocial variables to predict self-esteem will be discussed after examining the findings of the other study variables.

Does Low Self-Esteem Distort Perceived EE?

It may be argued that patients who are low in self-esteem may be more likely to perceive more EE because of their low self worth. The effect of low self-esteem on the perception of EE is not clear, however, there is evidence from the literature that perception would not be distorted. Rosenbaum et al (1996) found that reported dissatisfaction with family was not dependant on mood. Similarly Gerlsma et al (1994) found that memories of early parenting remained stable in the face of changes in anxiety, depression and hostility. In addition the significant positive correlation found between patient's perceived EE and their named other's report of their own EE suggests that the patient's perception was not state-dependent.

The Relationship Between Self-Esteem and Social Support

The hypothesis that self-esteem would be related to levels of social support was not borne out by the findings. There was no significant association between the SOS measure of actual social support (both emotional and practical) and self-esteem. Neither was there a significant relationship between the number of significant others named on the SOS, and levels of self-esteem.

Although for many of the sample the number of significant others in their lives was very low there was no significant association between this number and self-esteem. This was also the case even after accounting for the number of mental health professionals named as significant others. A large number of patients named professionals and after removing these from the figures, patients had an average of 4 non-professional significant others.

This is similar to the size of primary social networks found in existing research (Henderson et al, 1978; McFarlane et al, 1981; Cresswell et al, 1992).

The failure to find a significant relationship between self-esteem and actual social support could be explained partly by the fairly high degrees of perceived emotional support. The mean for practical support was less, but would still not be considered a low level of support. It appears then, that despite small primary networks that patients were receiving adequate quality of support from those significant others available. Unfortunately, this was not reflected in levels of self-esteem implying that this level of support was not sufficient to maintain positive self-regard.

In the current sample the levels of actual and ideal support were higher than those found by Cresswell et al (1992), but similar to a psychotic group studied by Neeleman and Power (1994). One of the differences in the Cresswell study was that a large group of the patients were non-Caucasian. This mainly Afro-Caribbean group had significantly larger secondary social networks than the Caucasian group but no difference in primary social networks. Although there is no data published on the mean scores for each group it would be interesting to find out if the difference was due to cultural factors. It is also the case that this study took place in a large inner-city area with probably higher levels of social depravation than the current sample where many patients were from a relatively affluent area of the country.

The hypothesis that less discrepancy between actual and ideal social support would be related to low levels of self-esteem, was not supported, in fact the opposite was found to

be the case. The discrepancy between actual and ideal emotional support was negatively correlated with self-esteem, showing that low self-esteem was related to larger degrees of discrepancy. This study hypothesis was based on the findings in previous studies that schizophrenia patients were not dissatisfied with levels of social support (Cresswell et al, 1992) and the suggestion that while patients do feel lonely they are aware that too much support may be stressful and lead to relapse (Wing, 1978; Neeleman & Power, 1994). These findings indicated that patients low in self-esteem would have low levels of ideal support as they may feel unworthy of it.

This does not appear to be the case with the current sample who did have relatively high levels of ideal emotional support. However, the mean discrepancy of actual and ideal support (.67), does not reflect high levels of dissatisfaction. It is in fact less than the mean discrepancy found by Neeleman and Power (1994) for psychotic (.9), depressed (1.4) and deliberate self harm (1.3) groups, although higher than the normal controls (.5). Nevertheless only 24% of patients did not show a discrepancy between actual and ideal emotional support, which is markedly different from previous findings where 65% of schizophrenia patients reported no discrepancy (Cresswell et al, 1992). Again this may be accounted for by socio-demographic factors.

It seems that within the current sample, although patients perceived relatively high levels of actual support, that they were not satisfied with this and wanted more. Patients may be aware that too much support may become overstimulating and stressful (Wing, 1978; Neeleman and Power, 1994), but in an ideal world this would not be the case. If patients feel that their condition prevents them from having more, and more qualitative,

social relationships it may indicate that the discrepancy was associated with an aspect of self-esteem which is related to their feelings about having a mental illness. This idea will be examined further when discussing the findings on beliefs about illness.

Life Events and Self-Esteem

There was no hypothesis made about the relationship with life events and self-esteem. However, as life events have been found to be important in the course of schizophrenia (Zubin and Spring, 1977; Neuchterlein and Dawson, 1984; Ventura et al, 1989) it was necessary to include life events in multiple regression analysis. Although the majority of patients in the current study had experienced life events in the previous 6 months, the number of events were low, and those which were perceived as stressful were lower still. Life events, whether stressful or not, were not related to self-esteem.

Symptomatology and Self-Esteem

It was not an objective of the study to predict the relationship between symptomatology and self-esteem but it was necessary to control for symptoms when examining the role of self-esteem in a condition where symptomatology is marked for its variance between individuals.

As would be expected from the literature on self-esteem and depression (Brown and Harris, 1978; Beck et al, 1979; Lewinsohn et al, 1981; Champion and Power, 1995), there was a significant negative correlation found in this sample of patients. This was true of the total self-esteem score and of the factor scores of *autonomous self regard* and *competence/self efficacy*. There were also significant correlations with anxiety,

which were not predicted from the literature. This finding may be an artefact of a depression/anxiety correlate, or may reflect a statistical anomaly. As levels of anxiety were not high and were not predicted from a theoretical perspective they were excluded from further analysis. Significant associations did not exist between self-esteem and either of the positive symptoms, the total psychopathology score or the negative symptoms score.

It may have been expected from the literature (Zigler and Glick, 1988; Bentall et al, 1994) that a significant relationship would exist between paranoid delusions and self-esteem, with the expectation that persecutory delusions would be related to high self-esteem. This was not evident from the results, where the correlation coefficient as well as being non-significant was a negative correlation i.e. in the opposite direction from that expected by existing findings. This result is probably due to the small number of patients within the sample who did have paranoid delusions and supports the idea that findings on specific symptoms are not generalisable to schizophrenia.

Psychosocial Predictors of Variance in Self-Esteem

The hypothesis that expressed emotion would be a better predictor of self-esteem in schizophrenia patients has been borne out by the results of standard multiple regression analysis. Perceived expressed emotion, and in particular the subscale of emotional responsiveness was by far the greatest predictor of self-esteem in this sample. This finding confirms existing literature in this area.

Although there exist strong evidence for the links between depression and self-esteem (Brown and Harris, 1978; Beck et al, 1979; Lewinsohn et al, 1981; Champion and Power, 1995) it appears that for this group of schizophrenia patients the emotional environment is more predictive of self-esteem than depressed mood. Depression was present in mild to moderate forms for 55.9% of the current sample, but a large group of patients did not have any symptoms of depression (44.1%). This is in line with findings on incidence of depression in schizophrenia (Birchwood et al, 1993), although does present low levels of severity. It is recognised, however, that recognising depression in schizophrenia, particularly in the presence of negative symptoms, can be difficult (Hogg, 1996). Also the measure of depression in the current sample was not a diagnostic instrument and is limited to the current presence of symptoms of depression which may indicate a possibility that depression was underestimated. Nevertheless, the large difference in contribution to self-esteem between *emotional responsiveness* and depression supports the finding that depression was not a good predictor of self-esteem in this sample.

Although discrepancy between actual and ideal emotional support was significantly associated with self-esteem it was not as predictive as perceived EE or *emotional responsiveness*. The SOS measures the availability of the named significant others to share feelings and to turn to in times of difficulty. It appears that even while providing this kind of support that significant others can have high levels of EE. The findings suggest that the presence of confidants in the individuals life is not protective of self-esteem in the presence of EE from one of these confidants.

The Nature of the Relationship Between Expressed Emotion and Self -Esteem

One of the limitations of a cross-sectional study is that causal directions cannot be tested. Reviewing the literature on self-esteem and its development, shows that contact with an important individual who portrays behaviour and attitudes of those which could be described as high expressed emotion would be damaging to self-esteem. The interpersonal domain of self-esteem has long been recognised as a fundamental aspect to the development of self worth (James, 1890). Nevertheless, schizophrenia is a complex condition which takes place not only in the family home but also in the community. Many negative experiences which happen over the course of a schizophrenic illness are likely to contribute to low self-esteem.

Indeed studies have shown that in the early stages of the illness there are relatively low levels of criticism from family members (Birchwood and Smith, 1988; Stirling et al, 1991). The experience of the onset and course of the illness and its consequences are likely to affect all domains of the structure of self esteem. Social functioning is impaired, loss of control is experienced, there is reliance on mental health services and the experience of social stigma. All of these aspects impact not only on the patient's life but also on the lives of their family and friends. It is therefore possible that the consequences of the illness, including low self esteem, create the negative emotional environment in the family. Research on EE has investigated this and some findings do report that EE may be partly a response to the patient and that increased exposure to the illness may increase negative attitudes (Neuchterlein et al, 1992). The origins of EE remain unclear, however, as discussed in the review of literature there is well established evidence that once it is operating, EE very much influences the outcome of the illness.

Knowledge of the development and maintenance of self-esteem particularly in regard to the need for approval by others and for unconditional regard from significant others (Baumeister, 1993) strongly indicates that high EE would be damaging to self-esteem. In this study, *emotional responsiveness* had the strongest relationship with low self-esteem. The indication here is that the inability of the relative to cope, and the distress which they exhibit, may lead to the patient feeling responsible for the distress of their significant other and also to self blame. The findings also suggest that EE which consists of blame toward the patient and perception that the patient is in fact the illness, and may in fact be reinforcing some of the myths of the social stigma of mental illness, does have a negative effect on self esteem.

Is there evidence for EE as a mediating variable in relapse?

The findings that self-esteem and perceived EE are significantly related are correlational and do not in themselves indicate a direction of causality, but nevertheless they do add to the evidence which indicates that self-esteem may be part of the 'black box' of EE, that is, involved in the process from EE to relapse (Jenkins, 1991). The study does not investigate this issue directly, but it does show that self-esteem is closely associated with EE and that we could therefore expect that low self-esteem would be a feature of patients prior to relapse. The evidence of dysphoric symptoms prior to relapse (Malla and Norman, 1994) would reinforce this. Also in support of this theory was the finding that *intrusiveness* did not have a significant association with self-esteem. This LEE subscale is related to overprotectiveness, and emotional over involvement which, have been found to have less predictive validity for relapse in schizophrenia (Kuipers, 1994).

Summary of the Discussion of Psychosocial Factors

The findings strongly indicate that self-esteem plays an important role in the course of schizophrenia. In particular the findings on the close relationship with expressed emotion, but also the finding that social support from close confidants was not sufficient to maintain self-esteem, suggest that it does have a role in the vulnerability/stress model of schizophrenia. How this may be addressed in clinical terms is discussed in the following section.

Cognitions Related to Self-Esteem in Schizophrenia

This section discusses the findings of the study on patients beliefs about themselves, their illness and their dysfunctional attitudes. It also examines the potential application of cognitive therapy to target low self-esteem.

The Relationship Between Beliefs About Schizophrenia and Self-Esteem.

Perceived control over illness

The hypothesis that the patient's beliefs of control over their illness would be related to self-esteem was not supported by the findings, and is not in line with the expectations from the findings of Birchwood et al (1993). Although the majority of patients in the current study did not feel powerless to control their illness, scores on the BPIQ for control of illness were very similar to those found by Birchwood et al (1993). In their study, however, control over the illness separated the depressed from the non-depressed patients with schizophrenia and they did not make specific the relationship with self-esteem. This is a further indicator, in addition to the current study's findings on

symptomatology, that self-esteem and depression are not closely related in this patient group.

Illness attribution

The second hypothesis about illness beliefs, that illness attribution would be related to self-esteem, has been supported by the findings. The belief that schizophrenia is an illness, like any other illness, was held by 56% of the patients, but the remainder of the sample had taken on the belief that there was something specific about them which had caused their illness to happen. Those patients who held this belief were more likely to have low levels of self-esteem. This adds support to the findings of Mechanic et al (1994). Regression analysis found that belief in the *self as illness* contributed most to the variance in self-esteem. Control over illness and depression which were included in the analysis from theoretical grounds did not make significant contributions to the variance.

Belief in self as illness assesses to what extent patients believe that the origin of their illness lies in some aspect of their self or psyche. The findings on EE described above illustrate that the presence of significant others who doubt the patient has an illness and instead blame the patient for their condition is associated with low *autonomous self regard.* That is patients are more likely to be influenced by the opinions of others around them. It thus appears that what may be happening is that patients are taking on board the beliefs of their significant others which is further contributing to their poor self-esteem. In addition it has been argued that Western society's beliefs about mental illness influence the patients negative self-image (Strauss, 1989; Estroff, 1989). Beliefs

that the person with schizophrenia is the disorder, rather than a person with a disorder, are commonly portrayed in language of society and the mental health community, for example in the use of the term 'the schizophrenic'. It would seem possible that these beliefs of others may either be internalised by patients or at least contribute to their aspect of self-esteem which is dependent upon the evaluation of others. This is confirmed by the current study findings on *autonomous self regard* and adds support to studies which have found a relationship between stigma and self-esteem (Link, 1987; Mechanic et al, 1994).

Dysfunctional Attitudes and Self-Esteem

The hypothesis that there would be a high prevalence of dysfunctional assumptions was supported by the findings of the study which show that there were significantly higher levels in the current sample of schizophrenia patients than were found in a previous study for depressed and GP practise groups (Power et al, 1992). The differences between the samples were most significant in the *achievement* and *self-control* subscales of the DAS-24, which were particularly high in schizophrenia patients. It is ironic that such unrealistically high standards for achievement and self-control should be present in a patient group, who through their condition, have less chance of achieving them than most. Self-control is often lost through exacerbations of positive symptoms while achievement is often limited due to the various social and occupational impairments brought about as a direct result of symptoms and of society's attitudes toward schizophrenia (Link et al, 1987). This strongly implies that self-esteem could not be maintained by these patients, and this was indeed the case in the study sample.

The hypothesis that dysfunctional attitudes and self-esteem would be related was borne out by the study findings. High levels of dysfunctional attitudes were related to low levels of self-esteem. Although high scores on both the *achievement* and *self-control* sub-scales were significantly related to low self-esteem, interestingly the most significant association was found for attitudes about *dependency* on the approval of others. As would be expected this was most significant for the component of self-esteem defined as *attractiveness/approval by others*. It appears then, that this sample of patients think highly of how other people regard them while in fact they are in the position where negative appraisal by others and by society is prevalent.

This particular finding indicates a link between low self-esteem in schizophrenia and depression as attitudes of *dependency*, as measured by the DAS-24, were found to be the only specific group of dysfunctional attitudes to remain active during recovery in depressed patients, and were proposed as forming part of a core cognitive vulnerability to depression (Power et al, 1995).

It would be a reasonable suggestion that the presence of dysfunctional attitudes in schizophrenia patients may be a function of mental state. However, the findings do not suggest such a case. There were no significant relationships with any of the symptomatology scores. An association did exist between delusions and the achievement subscale of the DAS but this did not reach the significance level set for unpredicted findings.

Why schizophrenia patients have such high levels of dysfunctional assumptions is not clear. Whether they develop from early experience as in the cognitive model of depression, and are a cognitive vulnerability factor (Beck et al, 1991; Power et al, 1995) or occur as some kind of response to schizophrenic illness is unclear. In a recently revised cognitive model of self-esteem, Fennel (1997), describes dysfunctional attitudes as ways of coping with or covering over negative views of self. There is some indication that this may be the case in schizophrenia as the unrealistic attitudes may defend against the patient's feeling of failure by establishing conditions which would not be possible to meet, thereby removing the need for them to attempt to meet them. This would make sense in the light of social withdrawal and poor motivation which is highly prevalent in schizophrenia.

Self Statements

Self statements of the kind which may arise during clinical interviews were measured to ascertain whether they would reflect the levels of self-esteem obtained from the standardised questionnaire. It was apparent from the results that patients self statements during a semi-structured interview were associated with the levels of self-esteem recorded by the Robson, Self-Esteem Questionnaire (Robson, 1989). It is interesting to note, however, that the majority of patients did make more positive than negative self statements about themselves. This may indicate that in this patient group the level of positive self-statements does not necessarily influence self-esteem. At first glance there appears to be a contradiction in the findings, as the ability to access positive cognitions about self, does not fit with the idea proposed above that self-esteem related to beliefs about the *self as illness,* and the doubt and blame expressed by significant others, would

be damaging to self-regard. There are, however, certain parallels with this position in depressed patients, where research has found that the condition is not influenced by a lack of access to positive cognitions, that positive and negative are relatively independent of one another (Peterson, 1991) and that depression and low self-esteem are more strongly related to negative cognitions (Miller and Moretti, 1988). This adds further evidence to the nature of the relationship between self-esteem and depression in the current study.

It may also be the case that these particular self descriptive statements were not affected by the negative opinion of others and society generally. Perhaps if patients were asked to describe how other people saw them rather than how they saw themselves the results may have been different. In retrospect it would have been useful to incorporate this into the study to measure against the scores on the Personal Beliefs About Illness Questionnaire.

Summary of the Discussion of Cognitions and Self-Esteem in Schizophrenia.

Beliefs about self, the illness and dysfuctional assumptions have all proved to be associated with self-esteem in schizophrenia. In particular patients who hold beliefs that their self is part of the illness, and those who have dysfunctional attitudes about dependency on others have the lowest levels of self esteem. Indications for clinical interventions to target self-self esteem are therefore promising.

Clinical Aspects of Cognitions Associated with Self-Esteem

It is evident from the study that the beliefs held by schizophrenia patients about themselves and their illness and their dysfunctional attitudes are related to their low levels of self-esteem, and therefore may have an important role in the clinical outcome of the illness, as suggested by the study findings. This would suggest that modification of these beliefs would be one method of targeting low self-esteem, and perhaps improving the outcome of the illness. As discussed in the literature review cognitive therapy has recently been introduced as a psychological treatment in psychosis, and has been found to be effective in modifying maladaptive beliefs about self and others (Bishay et al, 1989; Fowler, 1992), and also about their illness (Kingdon and Turkington, 1991,1994).

From the study findings it would appear that one of the most useful applications of cognitive behaviour therapy which could target self esteem, would be relabelling and normalising therapy (Kingdon and Turkington, 1991,1994). The many patients who have the belief that they are in some way responsible for their illness and the effect it has on others around them, and that they are themselves the illness, would benefit from therapy that offered destigmatizing information, and challenged their causal attributions. The existing research on this therapeutic approach has found beneficial outcomes including symptom reduction, there is no empirical evidence as yet, however, on the effect on self-esteem. The findings from the current study indicate that improvements in self-esteem could be obtained by addressing self-blame, and self absorption of stigmatizing views of schizophrenia.

Similarly the high prevalence of dysfunctional attitudes which have been found to be closely related to self-esteem, could be modified by cognitive behaviour therapy. As discussed in the literature review, the outcome studies in this area have described positive results, but have been relatively few in number and have not directly targeted self esteem (Perris, 1989; Bishay et al, 1989; Fowler, 1992; Garety et al, 1994). It is not evident from the findings that altering dysfunctional attitudes would improve self-esteem, however, cognitive therapy has been applied in this way in the treatment of depression and has proven efficacious (Fennel, 1995).

Methodological Issues

The present study was limited in its scope in a number of aspects. Several study variables had significant associations for which, based on existing literature, meaningful interpretation in terms of the direction of the relationships, could be made. Nevertheless, as in all cross sectional and correlational designs, the main limitation of the study is that it does not establish the direction of causality of the associations discussed, and therefore can only begin to address the question on the role of self-esteem in the clinical course of schizophrenia.

The Study Measures

Many of the study measures were self report, with the usual difficulties such as subjectivity and response bias. It is also the case that some patients find questionnaires difficult to complete. In this study the author assisted patients who did had difficulty, however, two patients did have difficulty understanding the items, due to cognitive deficits. This was a small number, however, particularly for a schizophrenia sample,

which would not effect the findings greatly. Some of the measures which were correlated may rather than demonstrating an association between two psychological concepts, may have been reflecting the similarity of the measures. This may have been a particular difficulty in the self-esteem questionnaire and the DAS-24. Although both have been shown to have construct validity, some of the items on the measures are similar and may be tapping into the same phenomenon.

Findings based on a self-report measure of expressed emotion must be treated with caution as this introduces response bias by measuring patients perceptions of EE rather than objective observer rated EE which is the usual method employed. Although this puts doubt on the comparisons with existing research, studies have shown that self-report measures continue to predict relapse. In a study by Hooley& Teasdale (1989) one question of 'How critical is your spouse of you?' accounted for more variance in relapse rates than EE measured with the Camberwell Family Interview (CFI). As discussed earlier the LEE scale has also been predictive of relapse in schizophrenia (Cole and Kazarian, 1993). Although it may have been preferable to use the CFI for valid comparisons with other research which has used this method, the time limits of this study together with the training required to administer the CFI made this impractical. The study accounted for this by including relatives versions of the scale, and as discussed earlier findings justify the use of the LEE to measure EE in the current study.

The Nature of the Sample

No standardised diagnostic instrument was employed in the current study and therefore the influence of the subtype of schizophrenia on the other study variables could not be

assessed. Assessment of current symptomatology did address this to some extent, but the actual subtype of schizophrenia does influence the course of the illness and therefore the study was lacking as a result of this.

As an opportunistic sample the group of patients in the current study cannot be truly representative of the population of schizophrenia patients. None of the patients lived in large inner-city conditions and there was no representation of minority ethnic groups.

Limitations arising from the small numbers of patients recruited to the study, include restrictions on the robustness of the tests, and on the type of statistics which could be employed. In addition the small numbers require cautious interpretation of the results and limit the extent to which results can be generalised to the population of schizophrenia patients. The exclusion of patients who were acutely psychotic, had co-existing dependency on substance or were intellectually impaired, actually excludes a large number of schizophrenia patients whose level of self-esteem remains unknown. There are good research grounds for such exclusions in a study of this type, but nevertheless these patients may well have greater reason to have low self-esteem. Although the numbers in the study were small this is not an uncommon finding in research with this client group, who due to the various consequences of their illness, are difficult to recruit.

Using the Concept of Schizophrenia in Research

Generalisation to the schizophrenia population as a whole is a crucial issue in current research in psychotic illness. As mentioned in the preamble to the study patients with a

diagnosis of schizophrenia are a heterogeneous group, therefore to study them as a whole specific group places some doubt on the validity of the findings. The usefulness of the concept of schizophrenia has been questioned by Bentall (1990) on the grounds of poor reliability and limitations in predicting the kind of treatment which may have good outcome. Many of the recently developed psychological treatments of patients with schizophrenia are directed at treating the symptoms of psychosis, rather than schizophrenia as a construct (Haddock and Slade, 1996). In addition continuum models of psychopathology illustrate the extent of overlap between the features of schizophrenia and other psychiatric diagnoses (Foulds and Bedford, 1975; McGovern, 1996).

Grounds for examining psychosis generally rather than schizophrenia are therefore quite strong. As explained in the preamble this was not deemed appropriate for this study due to the comparisons with concepts such as expressed emotion. It is also evident from the study, however, that there may be good reasons to continue to investigate schizophrenia as a construct. The findings of the current study show the beliefs held by patients, their families and society generally about schizophrenia, appear to have a significant contribution to the patients mental state. This relationship may exist in mental illness generally, but the unique stigma which is attached to the label of 'schizophrenia' may suggest that patients with this diagnosis may be more vulnerable to social stigma (Link, 1987; Mechanic et al, 1994).

Directions for Future Research

Bearing in mind the methodological limitations of the study, future investigations in this area would be best served by longitudinal or outcome evaluation research, in preferably

large samples of patients. To establish the role of self esteem in the course of the illness, and its place in the vulnerability/stress model of schizophrenia it should be assessed over long time intervals including periods of relapse.

The concept of expressed emotion and the direction of causality with self-esteem could be established by assessing these issues in families from the onset of illness, and recording change over the course of the illness and should incorporate measures of beliefs about illness, dysfunctional attitudes and other cognitions of both the patient and their significant others. Actual observation of the family would be the ideal way to measure the influence of self esteem and future research should aim for this as the most informative approach. Longitudinal studies could also pay closer attention to clinical features of the illness.

The indications from this study are that future studies on EE and relapse should aim to assess the process of change which takes place in the patient and that this should include a measure of self-esteem and assess the function of social support from a significant other.

In addition to establishing the role of self-esteem, further research should be aimed at clinical outcome, and the evaluation of interventions which target self-esteem directly. This could be in the form of family interventions which aim to increase self-esteem in the patient, and in cognitive behaviour therapy which addresses negative self regard, dysfunctional attitudes and maladaptive beliefs about schizophrenia.

The present study also points to further directions for research on comparisons between schizophrenia and other patient groups, particularly in the area of depressive symptoms, sources of self esteem and prevalence of dysfunctional attitudes. Similarly the findings on social support should be investigated in a larger sample in comparison with depressed patients and controls.

Clinical Implications

Clinical implications of the study findings have already been discussed in some detail with regard to cognitive therapy as a method of improving self-esteem. All interventions, psychological and psychiatric, which treat patients with schizophrenia should be aware of the effects of the treatment on the patients evaluation of self. Specifically psychological interventions such as family work, rehabilitation, relapse prevention, early signs monitoring and psychoeducation should aim to incorporate methods of improving self-esteem in patients. The study shows the importance of family and social relationships in patients lives and strongly reinforces the need for services which provide information and support for family, friends and others in the lives of patients. Ideally this would not occur when relationship difficulties are recognised but right from the onset of the illness.

Implications for clinical psychology services include the expansion of the services which are provided to patients with enduring mental illness. The findings of the study strongly indicate a greater role for psychological therapies in the treatment of schizophrenia. In addition to the direct targeting of self-esteem, the collaborative approach of psychological treatments may indirectly serve to improve the patient's self regard.

Conclusions

The study set out to examine the role of self-esteem in schizophrenia by showing the relationship with psychosocial factors which are associated with outcome in the condition. The findings strongly indicate that self-esteem plays an important role in the course of the illness. In particular the findings suggest that emotional environments which are characterised by high levels of emotional responsiveness, misunderstanding of the condition and susequent blame of the patient for their behaviour are most damaging to self-esteem. In addition social support perceived by patients as adequate was not sufficient to maintain self-esteem, suggest that it does have a role in the vulnerability/stress model of schizophrenia.

Beliefs about self, the illness and dysfunctional assumptions have all proved to be associated with self-esteem in schizophrenia. Therefore indications for the application of cognitive therapy to improve self-esteem in schizophrenia are promising.

As a final word it should be noted that any research which implicates family, friends and others in the outcome of an illness, may have the unintended effect of attaching blame to families, thus stigmatising them and inducing guilt or inadequacy. The presence of high expressed emotion cannot be blamed on any individuals, patients or families. The negative impact of schizophrenia is not only on patients but also on their families friend and others around them. Expressed emotion does not reflect intentional lack of care for the patient, indeed most of the caring for schizophrenia patients is carried out by family members. Research on such issues should always have an ultimate aim to alleviate difficulties by implicating clinical interventions to help patients and their families.

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List of Appendices

Appendix 1: Patient Information Sheet

GRAMPIAN HEALTHCARE
NATIONAL HEALTH SERVICE TRUST
Mental Health Services

Patient Information Sheet

You have been asked to take part in a research project which is looking at how people with a mental illness feel about themselves, others around them and how they feel about the illness itself. It is intended that this will add to understanding of how mental illness effects people and how psychological therapies may be useful.

If you decide to take part in this research you will be asked to meet with the researcher, Ms J.Harper, who will discuss these issues with you and who will assist you (if you wish) to complete some questionnaires.

If you are in agreement part of the meeting will be recorded on audio tape. This will be erased as soon as the information has been copied on paper. If you do not wish the conversation to be recorded this will not exclude you from the research.

This meeting should take around one and a half hours, but if more time is needed a further appointment will be arranged.

Coffee/tea and biscuits will be provided.

You are completely free to withdraw from the research, or part of the research at any time you wish and this will not effect your continuing medical or psychological treatment in any way.

All the information you give is treated as highly confidential and will be used for research purposes only.

If you have any questions about the research please ask.

Royal Cornhill Hospital, Cornhill Road, Aberdeen AB9 2ZH
Tel: (01224) 663131 Fax: (01224) 646201

Appendix 2: Letter to recruit patients

GRAMPIAN HEALTHCARE
NATIONAL HEALTH SERVICE TRUST
Mental Health Services

Tel. no: 01224 663131 ext 57913

Dear

I am writing to you about research that I am carrying out in Aberdeen at the moment. Your psychiatrist, , suggested that you may be interested in the research which is looking at how people with mental health problems feel about themselves and others around them and what they think about mental illness.

I would like to offer you an appointment to meet with me to discuss the research. If you decide to take part in the research the meeting will last for around one hour to discuss the research topics and to complete some questionnaires. (if you wish, I will help you to complete the questionnaires). Coffee/tea and biscuits will be provided.

All the information you give is confidential and for research purposes only. It does not go in your medical file and will not effect your medical or psychological treatment.

I have arranged an appointment time for you which is on

Thursday 10th April 1997 at 11.30 am,

at Clerkseat Building, Block A, Royal Cornhill Hospital. When you arrive please report to the receptionist at block A.

I hope you will be able to attend this appointment, but if you are unable to or would like to arrange a different time, please feel free to contact the secretary Mrs Midler at the above telephone number.

I look forward to meeting you.

Psychologist. Royal Cornhill Hospital, Cornhill Road, Aberdeen AB9 2ZH
Tel: (01224) 663131 Fax: (01224) 646201

Appendix 3: Letter to recruit the patients named significant other

I am writing to you regarding a research study which is currently taking place in Forth Valley and Grampian Health Board Regions. The aim of this study is to investigate ways in which psychological therapies may help people with mental illness, by looking at their feelings about themselves and their relationships with others around them.

Your son ..... has taken part in this research and has agreed that you may be contacted to be asked to complete the enclosed questionnaire as part of the study.

You are under no obligation to complete this form and ..... will not be informed of your decision, whether or not you return the form. If you do complete this form please note that the information is treated as **highly confidential** and will not be discussed with ..... or anyone dealing with his care. The information is used for research purposes only and you are not required to put your name on the form.

Due to the time limits on the research I would very much appreciate if you could complete and return the questionnaire as soon as possible. I have enclosed a stamped addressed envelope.

If you wish to discuss any of these points with me please feel free to contact me. At present I am based in Aberdeen, (Tel. No. above) but if you wish you may leave you telephone number with the secretary at Clinical Psychology in Bellsdyke Hospital, tel: 01324 556131 ext 2311 who will pass it on to me.

Thank you for your time and assistance in the research.

Yours Sincerely

Appendix 4: Patient Details Form

Patient Details

Name ..... **ID code**.....

Address: ..... **DOB**.....
.....

Tel. No.....

Consultant:..... **GP:**.....

Status: inpatient..... outpatient..... rehab. unit.....

Services at present: **When commenced** **Frequency**

Day hospital.....
Day centre..... .....
Rehab. Unit.....
CPN.....
Psychiatrist.....
Psychologist.....
Other.....

Employment: None..... Full time..... Part time .....

Patient's Report **Case notes**

Diagnosis:

First onset:

Number of admissions:

Previous interventions:

Current Medication:

Current living circumstances:
Family home..... Own home..... Supported accommodation.....

Family/home composition:

Appendix 5: Study Assessment Measures: Part 1

APPENDIX 1

SCORING SHEET FOR PSYCHIATRISTS ASSESSING PATIENTS

Patient's name ..... Date ..... Interviewer's initials .....

Key symptoms in the past:

(*Questions about past week* should include: whether depressed (? severe ? frequent) whether anxious (? severe ? frequent) how getting on with other people; whether anyone seems against him; whether he can think clearly; any interference with thoughts; thoughts read; reference to him on television or newspapers; hearing voices or seeing visions).

Name of rating	Reason for morbid rating	Rating
Rating made by replies to questions:		
Depressed		0 1 2 3 4
Anxious		0 1 2 3 4
Coherently expressed delusions		0 1 2 3 4
Hallucinations		0 1 2 3 4
Ratings made by observation:		
Incoherence and irrelevance of speech		0 1 2 3 4
Poverty of speech, mute		0 1 2 3 4
Flattened incongruous affect		0 1 2 3 4
Psychomotor retardation		0 1 2 3 4

Side effects	Absent	Mild	Marked
Tremor	0	1	2
Rigidity	0	1	2
Dystonic reactions	0	1	2
Akathisia	0	1	2
Difficulties with vision	0	1	2
Other (specify)	0	1	2

Self Esteem Questionnaire

This questionnaire deals with attitudes and beliefs that some people have about themselves.

Please indicate how much you agree or disagree with each statement by ringing the single number in each answer section which represents how you typically feel most of the time.

Since people vary so much in the opinions they hold there are no right or wrong answers.

NAME: AGE: SEX: M / F

DATE:

STATEMENTS	ANSWERS							
	Completely disagree			disagree	agree			Completely agree
1. I have control over my own life	0	1	2	3	4	5	6	7
2. I'm easy to like	0	1	2	3	4	5	6	7
3. I never feel down in the dumps for very long	0	1	2	3	4	5	6	7
4. I can never seem to achieve anything worthwhile	0	1	2	3	4	5	6	7
5. There are lots of things I'd change about myself if I could	0	1	2	3	4	5	6	7
6. I am not embarrassed to let people know my opinions	0	1	2	3	4	5	6	7
7. I don't care what happens to me	0	1	2	3	4	5	6	7

STATEMENTS (CONTINUED	ANSWERS							
	Completely disagree			disagree		agree		Completely agree
8. I seem to be very unlucky	0	1	2	3	4	5	6	7
9. Most people find me reasonably attractive	0	1	2	3	4	5	6	7
10. I'm glad I'm who I am	0	1	2	3	4	5	6	7
11. Most people would take advantage of me if they could	0	1	2	3	4	5	6	7
12. I am a reliable person	0	1	2	3	4	5	6	7
13. It would be boring if I talked about myself	0	1	2	3	4	5	6	7
14. When I'm successful there's usually a lot of luck involved	0	1	2	3	4	5	6	7
15. I have a pleasant personality	0	1	2	3	4	5	6	7
16. If a task is difficult that just makes me all the more determined	0	1	2	3	4	5	6	7
17. I often feel humiliated	0	1	2	3	4	5	6	7
18. I can usually make up my mind and stick to it	0	1	2	3	4	5	6	7
19. Everyone else seems much more confident and contented than me	0	1	2	3	4	5	6	7
20. Even when I quite enjoy myself there doesn't seem much purpose to it all	0	1	2	3	4	5	6	7

STATEMENTS (CONTINUED)	ANSWERS							
	Completely disagree			disagree		agree		Completely agree
21. I often worry about what people are thinking about me	0	1	2	3	4	5	6	7
22. There's a lot of truth in the saying: "what will be will be"	0	1	2	3	4	5	6	7
23. I look awful these days	0	1	2	3	4	5	6	7
24. If I really try I can overcome most of my problems	0	1	2	3	4	5	6	7
25. It's pretty tough to be me	0	1	2	3	4	5	6	7
26. I feel emotionally mature	0	1	2	3	4	5	6	7
27. When people critise me I I often feel helpless and second rate	0	1	2	3	4	5	6	7
28. When progress is difficult I often find myself thinking it's just not worth the effort	0	1	2	3	4	5	6	7
29. I can like myself even when others don't	0	1	2	3	4	5	6	7
30. Those who know me well are fond of me	0	1	2	3	4	5	6	7

Please check that you have responded to every statement

THE LEE SCALE

The following are a number of statements that describe the ways in which someone may act towards you. Please indicate whether the most influential person in your life has acted in these ways during the past 3 months.

	True	False
1. Understands if sometimes I don't want to talk.	T	F
2. Calms me down when I'm upset.	T	F
3. Says I lack self-control.	T	F
4. Is tolerant with me, even when I'm not meeting his/her expectations.	T	F
5. Doesn't butt into my conversations.	T	F
6. Doesn't make me nervous.	T	F
7. Says I just want attention when I say I'm not well.	T	F
8. Makes me feel guilty for not meeting his/her expectations.	T	F
9. Isn't over-protective with me.	T	F
10. Loses his/her temper when I'm not feeling well.	T	F
11. Is sympathetic towards me when I'm ill or upset.	T	F
12. Can see my point of view.	T	F
13. Is always interfering.	T	F
14. Doesn't panic when things start going wrong.	T	F
15. Encourages me to seek outside help when I'm not feeling well.	T	F
16. Doesn't feel that I'm causing him/her lots of trouble.	T	F
17. Doesn't insist on doing things with me.	T	F
18. Can't think straight when things go wrong.	T	F
19. Will not help me when I'm upset.	T	F
20. Puts me down if I don't live up to his/her expectations.	T	F
21. Doesn't insist on being with me all the time.	T	F
22. Blames me for things not going well.	T	F

	True	False
23. Makes me feel valuable as a person.	T	F
24. Can't stand it when I'm upset or confused.	T	F
25. Leaves me feeling overwhelmed.	T	F
26. Doesn't know how to handle my feelings when I'm unwell.	T	F
27. Says I cause my troubles to occur in order to get back at him/her.	T	F
28. Understands my limitations.	T	F
29. Often checks up on me to see what I'm doing.	T	F
30. Is able to be in control in stressful situations.	T	F
31. Tries to make me feel better when I'm ill.	T	F
32. Is realistic about what I can and cannot do.	T	F
33. Is always nosing into my business.	T	F
34. Hears me out.	T	F
35. Says it's not right to seek professional help.	T	F
36. Gets angry with me when things don't go right.	T	F
37. Has to know everything about me.	T	F
38. Makes me feel relaxed when he/she is around.	T	F
39. Accuses me of exaggerating when I say I'm unwell.	T	F
40. Will take it easy with me, even if things aren't going right.	T	F
41. Insists on knowing where I'm going.	T	F
42. Gets angry with me for no reason.	T	F
43. Is a considerate person when I'm ill.	T	F
44. Supports me when I need it.	T	F
45. Butts into my private matters.	T	F
46. Can cope well with stress.	T	F
47. Is willing to gain more information to understand my condition, when I'm not feeling well.	T	F
48. Is understanding if I make a mistake.	T	F

	True	False
49. Doesn't pry into my life.	T	F
50. Is impatient with me when I'm not well.	T	F
51. Doesn't blame me when I'm feeling unwell.	T	F
52. Expects too much from me.	T	F
53. Doesn't ask a lot of personal questions.	T	F
54. Makes matters worse when things aren't going well.	T	F
55. Often accuses me of making things up when I'm not feeling well.	T	F
56. Flies off the handle when I don't do something well.	T	F
57. Gets upset when I don't check in with him/her.	T	F
58. Gets irritated when things don't go right.	T	F
59. Tries to reassure me when I'm not feeling well.	T	F
60. Expects the same level of effort from me, even if I don't feel well.	T	F

LEE Scale

The following are a number of statements that describe the ways in which people often act towards others that they are close to. Please indicate whether the following statements are true of how **you** have **usually** acted towards ....., during the **past three months.**

	True	False
1. I understand if sometimes he/she doesn't want to talk.	T	F
2. I calm him/her down when he/she is upset.	T	F
3. I say he/she lacks self control.	T	F
4. I am tolerant of him/her even when he/she is not meeting my expectations.	T	F
5. I don't butt in to his/her conversations.	T	F
6. I don't make him/her nervous.	T	F
7. I say he/she just wants attention when he/she says they are not well	T	F
8. I make him/her feel guilty for not meeting my expectations.	T	F
9. I am not over protective with him/her.	T	F
10. I lose my temper when he/she is not feeling well.	T	F
11. I am sympathetic towards him/her when he/she is ill or upset.	T	F
12. I can see his/her point of view.	T	F
13. I am always interfering.	T	F
14. I don't panic when things start going wrong.	T	F
15. I encourage him/her to seek outside help when he/she is not feeling well.	T	F
16. I don't feel that he/she is causing me a lot of trouble.	T	F
17. I don't insist on doing things with him/her.	T	F
18. I can't think straight when things go wrong.	T	F

19.	I will not help him/her when he/she is upset.	T	F
20.	I put him/her down if he/she doesn't live up to my expectations.	T	F
21.	I don't insist on being with him/her all the time.	T	F
22.	I blame him/her for things not going well.	T	F
23.	I make him/her feel valuable as a person.	T	F
24.	I can't stand it when he/she is upset or confused.	T	F
25.	I leave him/her feeling overwhelmed.	T	F
26.	I don't know how to handle his/her feelings when he/she is unwell.	T	F
27.	I say he/she causes their troubles to occur in order to get back at me.	T	F
28.	I understand his/her limitations.	T	F
29.	I often check up on him/her to see what he/she is doing.	T	F
30.	I am able to be in control in stressful situations.	T	F
31.	I try to make him/her feel better when he/she is ill.	T	F
32.	I am realistic about what he/she can and cannot do.	T	F
33.	I'm always nosing into his/her business.	T	F
34.	I hear him/her out.	T	F
35.	I say it's not right to seek professional help.	T	F
36.	I get angry with him/her when things don't go right.	T	F
37.	I have to know everything about him/her.	T	F
38.	I make him/her feel relaxed when I am around.	T	F
39.	I accuse him/her of exaggerating when he/she says they are unwell.	T	F
40.	I take it easy with him/her, even if things aren't going right.	T	F
41.	I insist on knowing where he/she is going.	T	F
42.	I get angry with him/her for no reason.	T	F

43.	I am a considerate person when he/she is ill.	T	F
44.	I support him/her when he/she needs it.	T	F
45.	I butt into his/her private matters.	T	F
46.	I can cope well with stress.	T	F
47.	I am willing to gain more information to understand his/her condition when he/she is not feeling well.	T	F
48.	I am understanding if he/she makes a mistake.	T	F
49.	I don't pry into his/her life.	T	F
50.	I am impatient with him/her when he/she is not well.	T	F
51.	I don't blame him/her when he/she is not feeling well.	T	F
52.	I expect too much of him/her.	T	F
53.	I don't ask a lot of personal questions.	T	F
54.	I make matters worse when things aren't going well.	T	F
55.	I often accuse him/her of making things up when he/she is not feeling well.	T	F
56.	I fly of the handle when he/she does not do something well.	T	F
57.	I get upset when he/she does not check in with me.	T	F
58.	I get irritated when things don't go right.	T	F
59.	I try to reassure him/her when he/she is not feeling well.	T	F
60.	I expect the same level of effort from him/her even when he/she is not feeling well.	T	F

Please say in what way you are related to this person(e.g. brother, friend etc.)

.....

How often are you in contact with them?(e.g. daily, weekly, etc)(note this also includes contact over the phone) .....

Thank you for completing this questionnaire which will be treated in the ***strictest confidence.***

Please return to Clinical Psychology, Royal Cornhill Hospital, Aberdeen. (Envelope included)

SIGNIFICANT OTHERS SCALE (B)

Name: _____

Date: **Record Number:** _____

Instructions

Please list below up to seven people who may be important in the individual's life. Typical relationships include partner, mother, father, child, sibling, close friends, plus keyworker. For each person please circle a number from 1 to 7 to show how well he or she provides the type of help that is listed.

The second part of each question asks you to rate how they would like things to be if they were exactly as they hoped for. As before, please put a circle around one number between 1 and 7 to show what the rating is.

		Never			*Sometimes*			*Always*
Person 1 – _____								
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to your this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
Person 2 – _____								
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
Person 3 – _____								
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

PLEASE CIRCLE ONE NUMBER ONLY FOR EACH QUESTION

Person 4 – _____

		Never			Sometimes			Always
1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Person 5 – _____

1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Person 6 – _____

1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

Person 7 – _____

1	a) Can you trust, talk to frankly and share your feelings with this person?	1	2	3	4	5	6	7
	b) What would your ideal rating be?	1	2	3	4	5	6	7
2	a) Can you lean on and turn to this person in times of difficulty?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
3	a) Does he/she give you practical help?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7
4	a) Can you spend time with him/her socially?	1	2	3	4	5	6	7
	b) What rating would your ideal be?	1	2	3	4	5	6	7

PLEASE CIRCLE ONE NUMBER ONLY FOR EACH QUESTION

LIFE EVENTS INVENTORY

Please indicate whether any of the following events have happened to you in the last six months by placing a tick (√) beside an event which had a good effect overall on your life, or a cross (X) beside any event that you felt had a bad effect.

1	Unemployment	___
2	Trouble with superiors at work or college	___
3	New job	___
4	Change in hours or conditions in present job	___
5	Moving house	___
6	Purchasing own house (taking out mortgage)	___
7	New neighbours	___
8	Quarrel with neighbours	___
9	Income increased substantially (25%)	___
0	Income decreased substantially (25%)	___
1	Getting into debt beyond means of repayment	___
2	Going on holiday	___
3	Conviction for minor violation (e.g. speeding or drunkeness)	___
4	Jail sentence	___
5	Involvement in fight	___
6	Immediate family member starts drinking heavily	___
7	Immediate family member attempts suicide	___
8	Immediate family member sent to prison	___
9	Death of immediate family member	___
0	Death of close friend	___
	Immediate family member seriously ill	___
	Gain of new family member (immediate)	___
	Problems related to alcohol or drugs	___
	Serious restriction of social life	___

Period of homelessness (e.g. hostel or sleeping rough) ___

Serious physical illness or injury ___

Pregnancy (or of partner) ___

Miscarriage ___

Abortion ___

Sex difficulties ___

Marriage ___

Increase in arguments with partner ___

Increase in arguments with other family members (e.g. children) ___

Trouble with other relatives (e.g. in-laws) ___

Son or daughter left home ___

Children in care of others ___

Trouble or behaviour problems in own children ___

Death of spouse or partner ___

Divorce or end of steady relationship ___

Separation from spouse or partner ___

Extra-marital sexual affair ___

Break up of affair ___

Infidelity of spouse or partner ___

Reconciliation with spouse or partner ___

Spouse or partner begins or stops work ___

Taking exams ___

Failing an important exam ___

Valuable possessions lost or stolen ___

Other events (please specify) .....

.....

Appendix 6: Study Assessment Measures: Part 2

Personal Beliefs About Illness Questionnaire (PBIQ)

Initials ..... ID code.....

Date.....

	Strongly Disagree	Disagree	Agree	Strongly Agree
My illness frightens me.----------				
find it difficult to cope with my current symptoms.----------				
am powerless to influence or control my illness.----------				
I am going to relapse there is nothing I can do about it.-------				
here must always have been something wrong with me as a rson to have caused this illness.----------				
m fundamentally normal, my illness is like any other.---------				
ere is something about my personality that causes my ness.--				
ere is something strange about me which is responsible for illness.----------				
ill always need to be cared for by professional staff.----------				
n capable of very little as a result of my illness.----------				
illness is too brittle or delicate for me to work or keep a .----------				
n embarrassed by my illness.----------				
illness is a judgement on me.----------				
n talk to most people about my illness.----------				
iety needs to keep people like me, who have this illness, t from everyone else.----------				
ple like me must be controlled by psychiatric services.------				

s scale lists different attitudes or beliefs which people sometimes
d. Please read each statement carefully and decide how much you agree
disagree with what it says.

For each of the attitudes, please indicate your answer by placing a
: (√) under the column that best describes how you think. Be sure to
se only one answer for each attitude. But please note that because
le are different, there is no right or wrong answer to these
ements.

To decide whether a given answer is typical of your way of looking
things, simply keep in mind what you are like most of the time.

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALL DISAGR
If I fail partly, it is ad as being a complete ure							
If others dislike you, cannot be happy							
I should be happy all time							
eople will probably k less of me if I make a ake							
My happiness depends on other people than it on me							
I should always have lete control over my ings							
y life is wasted unless a success							
hat other people think t me is very important							
ought to be able to e my problems quickly without a great deal of rt							
If I don't set the est standards for lf, I am likely to end second rate person							
I am nothing if a person ve doesn't love me							
A person should be able ontrol what happens to							

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
If I am to be a thwhile person, I must be ly outstanding in at st one major respect							
If you don't have other ple to lean on, you are nd to be sad							
It is possible for a son to be scolded and not upset							
I must be a useful, ductive, creative person life has no purpose							
I can find happiness out being loved by her person							
A person should do well verything he undertakes							
If I do not do well all time, people will not ect me							
I do not need the oval of other people in r to be happy							
If I try hard enough, I ld be able to excel at hing I attempt							
People who have good s are more worthy than e who do not							
A person doesn't neeed e well liked in order to appy							
Whenever I take a chance isk I am only looking trouble							

Self-Statements: Semi-Stuctured Interview

Questions should remain as close as possible to the following although prompting is fine where necessary.

1. How would you describe yourself as a person?

2. What do you like and dislike about yourself?

3. What do you feel you are good and not so good at doing?

Number of Positive Self Statements .....

Number of Negative Self Statements .....

Appendix 7: Consent Form

CONSENT BY PATIENT/VOLUNTEER TO PARTICIPATE IN:

.....

Name of Patient/Volunteer: .....

Name of Study: .....

Principal Investigator: .....

I have read the patient/volunteer information sheet on the above study and have had the

opportunity to discuss the details with ..... and ask questions. The doctor has explained to me the nature and purpose of the tests to be undertaken. I understand fully what is proposed to be done.

I have agreed to take part in the study as it is has been outlined to me, but I understand that I am completely free to withdraw from the study or any part of the study at any time I wish and that this will not affect my continuing medical treatment in any way.

I understand that these trials are part of a research project designed to promote medical knowledge, which has been approved by the Joint Ethical Committee, and may be of no benefit to me personally.

I also understand that, where appropriate, my General Practitioner will be informed that I have taken part in this study.

I hereby fully and freely consent to participate in the study which has been fully explained to me.

Signature of Patient/Volunteer : .....

Date : .....

I confirm that I have explained to the patient/volunteer named above, the nature and purpose of the tests to be undertaken.

Signature of Investigator: .....

Date: .....